VOYAGE OF DISCOVERY

IN

THE SOUTH SEA,

AND TO

BEHRING's STRAITS,

IN SEARCH OF

A North-east Passage;

UNDERTAKEN IN THE YEARS 1815, 16, 17, and 18,

In the Ship Rurick.

BY OTTO VON KOTZEBUE.

PART II.

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KOTZEBUE'S

VOYAGE ROUND THE WORLD.

January 1*st*, 1817; lat. 10° 10′, long. 189° 54′.—At four o'clock P.M. we descried land in N.N.W. It was a low woody island, the length of which from north to south was three miles, and the breadth three-quarters of a mile. Not knowing of any island about this neighbourhood, I made sure of its being a new discovery, and named it *New-year's Island*, having first seen it on New-year's Day. On account of the low wind, we could not undertake any farther examination this day; immense numbers of fish played around us; but I saw less birds, from which I concluded that the island was inhabited.

On the 2d, there being a very long reef on the northern part of the island, extending to the N., I steered my course to the S. where no surf was to be seen. When we had approached the S. point within about two miles, we were surprised by seven canoes, each rowed by six or eight men, making straight towards us. Their construction was the same as of those we had seen in Kutusoff Islands, only being much smaller, and put together with very small pieces of board; which indicated a want of timber. They let it in the water very quickly; and, as the natives never leave the island but in perfect calm, the boats have neither masts nor sails. They approached us with much exertion, till within 100 fathoms, where they kept moving their oars but negligently, looking towards the ship with great astonishment. Their behaviour, at the same time, was rational; we neither noticed the cries, nor the ridiculous motions usually made by savages, upon their first meeting with Europeans; their attention was engaged by the ship, which they surveyed from the top of the mast to the water. These savages appeared tall and slender; their dark complexion, and their being tattooed every where, except in their faces, made them look quite black at a distance. A high forehead, curved nose, and lively hazel eyes, distinguish the natives of New-year's Island from those of the other South-sea Islands: their long black hair is rubbed with cocoa-nut oil, tied together on the top of the head, and

adorned with flowers and shells; and round the neck they wear ornaments of red shells. Their dresses were of various kinds; some had two fine mats wound round their body, others wore a plaited belt, from which grass-fringe hung down to their feet, and entirely covered them. We particularly noticed the ear-holes being more than three inches in diameter, in which they wore green leaves twisted together. In each boat was a chief, who did not row, but gave orders. He always sat on the side of the boat, cross-legged, upon an elevated part, where he looked very stately. One of these chiefs, a tall, well-made man, with a thick beard, seemed to be more tattooed than the rest; he held in his hand a large shell, from which he frequently blew forth very loud and hollow sounds,—for what purpose I could not learn; yet I remember to have previously seen these shells on the Marquesas, where they are used in war. On our invitation, they came nearer, but would not come on-board. The trade began to be very brisk: for small pieces of old iron hoops, they willingly gave the most curious articles of their manufactures, and the chief even parted with his beautiful shell-horn for a piece of old iron, which, after having looked at with delight, he concealed in his girdle. They dealt very honestly, and I thought them cheerful and even jocular. Their arms, only consisting of lances, carelessly made, proved that they were no warriors; but their other productions were neater than I have often seen them, and they were remarkably clean in their persons. The island did not seem to be very fertile in provisions, at least these natives had nothing with them except a few pandanus-grains, which they were incessantly chewing. As far as we could judge from the hasty glance we gave at the inhabitants of the Kutusoff-islands, they seem to be of the same origin.

We found the latitude in the middle of the island 10° 8' 27", N., and the long. 189° 4' 46" W. Availing ourselves of the calm, I dispatched Lieut. Schischmareff and the scientific gentlemen, in two well-armed boats, to effect, if possible, a landing. They returned, after a few hours, without having gained their object, and the lieutenant gave me the following report:

"When the islanders in the boats, near the ship, saw that we were rowing towards their island, they immediately followed us: we approached a spot, which we thought would be convenient for landing; the surf was trifling, and, if the natives had not prevented us, we should have gone on shore. They had collected there in large numbers, armed with lances, with notched points fastened to them; others surrounded us with their boats, which induced me to open the trade on the water,

where we then were; they jumped into the sea by crowds, swam to us, and brought us mats, necklaces of shells, cocoa-nuts, pandanus-fruit, and fresh water in cocoa-shells; they also offered to exchange their lances with two small bows made of wood, and of which they had formed a weapon, by means of shark's-teeth; they were one foot and a half long, and two inches broad. The number of islanders swimming was still increasing, and the boats formed a complete circle; but, without our suffering one of them to come too near, they became very bold and impudent, and offered us even cocoa-shells with sea-water; an old man would get absolutely into the boat where I was; I tapped his hands, and threatened him with my sword, but he would not desist, till I gave him a blow on his head with my fist, when he swam back to shore. Another old man was about to seize upon the rudder of the baydare, which so enraged the helms-man, that he would have fired upon him, had he not been prevented by the gentlemen who were with him; in order to prevent any unpleasant consequences, I preferred returning on-board. The island is surrounded by red-coral reefs; on the spot where we stood, the water is not above one foot deep. Near the reef itself it is five fathoms, and farther out, about fifteen feet from shore, we could not find the bottom: it was upon this reef the natives had assembled, which made it impossible to land without danger. We were surrounded by about eighteen boats, none of which held more than six men, several of them only one or two, and all without masts. The number of natives, in the boats and upon shore, amounted to about 200; we saw but few women, and no children among them. The island is well wooded, and we saw several pandanus-trees, but only few cocoa-trees, and those very low. The natives were all tattooed the same as those who came to the ship; they had also twisted leaves in their ears."

I now changed my plan about sailing to the Kutusoff group, and steered, as I expected, to other islands near the New-year's Island, S.W., to get again in the parallel 10°, and then to take a westerly course. This parallel, in longitude 189°, is so full of islands in Arrowsmith's chart, that I could not miss them, if only the tenth part of them existed. At sun-set we lost sight of New-year's Island, although we were but a few miles of it, and tacked during the night, to keep the ship on one spot.

On the 23d of January we saw several snipes, but no land; having reached lat. 10° 2', long. 189° 40', I thought it useless to go father W., convinced that the islands marked on Arrowsmith's chart were not here; and therefore turned the ship S.E.

to try my fortune in this direction. At seven o'clock P.M. we were in lat. 9° 37′, seven miles W. of the course-line of last year, without seeing land from the mast-head. We shot a pelican which came close to the ship. In these parts the horizon is seldom clear, appearing always to be covered by a fog.

Jan. 4th; lat. 9° 43′, long. 189° 53′.—My intention was to have pursued our present direction only this day, and to have turned our course to S.E. It was almost noon when land was announced. At one o'clock we saw from the forecastle, at a distance of six miles, a string of small wooded islands, the intervals of which were filled with coral-reefs, extending as far as the eye could reach: I already counted more than twenty; and, pursuing the chain within a distance of two miles, saw the surf breaking itself with fury upon the coral-reefs, and the water beyond the chain as smooth as a mirror. At four o'clock P.M. we reached the W. point of the islands; the group here terminated, but a long reef, projecting just above the water, stretched to the S.W., and then took its direction to S.E. farther than the eye could reach. As soon as we had doubled the W. point, we were under the wind, in perfectly calm water, and approached the reefs within a distance of 200 fathoms, in the hope of finding a passage between them. I knew, from experience, that the depth near coral-reefs is always very considerable, and I was therefore bold enough to overlook the danger; besides, this is the only means of examining them, since at a distance of half a mile the passage would no longer be visible. *D'Entrecasteaux*, who, in surveying the coast of New-Caledonia, expected to find a passage between the reefs, only approached within three miles of them, which prevented him discovering what he sought. This navigation certainly requires the greatest precaution; there must be always a man on the mast-head, a second on the bow-sprit, a third on the ship's-head, and the pilot, provided with a good telescope, in the scuttle, in order to warn against danger; and Capt. Flinders justly observes of these places, "that a man who has weak nerves should leave such an investigation alone." Mine I felt strong enough to face such a danger, although any sudden shifting wind would have been fatal to us, by throwing us against the rocks. But we were all upon the watch, and the crew ready to lay the vessel round at a moment's notice. Under such precautions we rapidly continued our course, without perceiving the least opening or curve in the reef. The chain of islands lay on the north of us, at a distance of six miles, and our access to them cut off by the reef, two fathoms wide; beyond it the water was calm, and the depth seemed considerable. As far as we could see, the reef ran to S.E., and at the end of it we descried a small island, higher than the rest, which probably

was connected with it. At last we found two passages, through which, although they were rather narrow, we hoped to get with our ship. This discovery, not only of consequence to us but to every navigator, we should not have made, had we not approached the reef within a musket-shot. It was too late to proceed, and we left the dangerous spot for the night.

Jan. 5th; lat. 9° 27′ 55″ N., long. 190° 11′ 30″.—The current had driven us so far N.W. during the night, that we saw no land till seven o'clock, and at nine we were again upon the spot which we had left the day before. I now dispatched the lieutenant to examine the northernmost of the passages, which he found very deep, but thought it impossible to penetrate through it with the ship, the navigable track being seldom above fifty fathoms wide, constantly winding, and the entrance besides so situated that the trade-wind always blew out of it. We now sailed for the second passage, which we reached at noon; and, while Schischmareff examined it with the boat, we took some observations, by which we clearly ascertained the situation of this passage. Schischmareff having happily got through the reef, informed us, by signals, that he had found no bottom at the entrance, but on the spot where he lay it was 100 fathoms, and on the other side of the reef 26 fathoms depth, over a coral ground. The narrowest part of the passage he found 123 fathoms. These islands are very interesting, from their construction, being entirely formed by marine vegetables: and I made up my mind to attempt much more, before I gave up my plan of penetrating between this chain. The night approaching and the wind becoming brisk, we recalled the boat, and fell upon the following expedient, to make sure of keeping for the night on this dangerous, yet important, spot, which I was afraid of losing. Warp-anchors were fixed to the reef; we then brought the Rurick within fifty fathoms of it, took in all sails, and fastened her to those anchors by means of a cable 175 fathoms long. As long as the trade-wind kept blowing from N.E., there was no danger; but, had it shifted to S.E., (an event which is very common here,) we should have been irretrievably lost. The reefs principally consist of grey corals, there being very few red among them; at low water the rocks are visible two feet above it, which was the case when we fixed our warp-anchors, but soon every thing was covered with water. At a short distance from it we had forty fathoms' depth, but which, a little farther, increased so much that we could find no bottom. On the east side of the strait a small sandy island has been formed, which will in time undoubtedly extend, be covered with plants, and become like the rest of the islands. We were surrounded by a great number of sharks, which gree-

dily swallowed every thing that was thrown over-board; they seemed chiefly to keep themselves near the passage, on account of the many fish that probably swim about there with the regular current. Flying-fish also frequently skimmed the air, probably to escape from their voracious enemies. The boat, which examined the strait, was attacked by sharks, which could not be repelled by blows with the oars; we caught two of them, which was very easily effected, as they swallowed the hook the moment it was thrown out. At midnight we perceived the strength of the current from the strait was one knot.

On the 6th, at four o'clock in the morning, it being still very dark, the wind shifted to east, and soon afterwards to E. by S., which brought our ship within a short distance of the reef; the depth here was twenty-three fathoms. As it would have required but one blast from the south to break our ship against the rocks, I was compelled to retire from my post, even leaving my anchors behind, which now lay too deep under water. The cable was loosed, the sails hoisted, and we got safe off the reef, but kept tacking in its vicinity. As soon as the sun appeared above the horizon, we made for the channel, finding the wind just blowing from E. to E. by S.; we profited by the moment and entered it with full sails. At nine o'clock, 40 min. we were in the middle of the channel; a dead silence reigned on-board, which was only broken by the roaring surf from both sides, and every one was at his post. At last the pilot from the scuttle called out, that there was no more danger, as the water assumed a dark colour. The Rurick now sailed upon perfectly smooth water; we had the surf behind us, and congratulated each other upon the success of the adventure. The current, which in the strait ran two knots, had quickly carried us from every danger, the whole transit lasting only 15′. The passage was named Rurick Strait. We took a straight course, on the 4th, from W. to E., (from which direction I shall always reckon my course;) we saw several columns of smoke, and, by the aid of the glass, also some of the inhabitants. But, notwithstanding our anxiety for getting in contact with the natives of these islands, we sailed but slowly, frequently throwing out the plummet, for fear of getting upon shallows. Immediately after leaving Rurick Strait, we found the depth over a ground of live corals, from 26 to 27 fathoms; on coming near the island, it gradually decreased, and, at a distance of two miles, we found 18 fathoms. The bottom, which in some places consisted of fine coral-sand, induced us to hope that we should find a good anchorage near the island; my lieutenant, who preceded us in a boat, soon signified to us that he had found ten fathoms of depth over fine coral-sand, and we immediately

steered our course for it. In the north we had now, at a distance of 200 fathoms, the reef which united the third island with the fourth. At the same distance we were protected in the east from a coral-reef, visible at low water; and we lay in a perfect calm, which, in this place, even the most violent wind did not ruffle. Our prospect was confined in the east by the chain of islands; in the west we saw the reef, round the outside of which we had sailed; in the south we had a clear horizon, as the reef through which we had passed was not even discernible from the mast-head, only the small low island I mentioned before being visible. The geographical situation of this group was yet enveloped in doubt, yet it was natural to suppose that there was some connexion in the north, since no high waves came from that direction. The water on the spot where we lay was so clear, that the bottom could be seen from 10 and 12 fathoms; at the same time we had the most beautiful weather. The naturalists made an excursion upon the third island, from which they returned in the evening with plants and shells. The islands 1, 2, and 3, were found uninhabited, although traces of people were every where visible. At 3 o'clock, P.M. we saw a boat under sail, coming from the east, which, after having unloaded something on the fourth island, made straight towards us. By the large sail and some clever manœuvres, we perceived that it completely resembled those on the Kutusoff Islands. It approached the Rurick within 50 fathoms, the sail was taken in, and an old man at the helm, probably the commander, showed us some fruit, at the same time speaking aloud, and frequently repeating the word, *Aidara*, which we remembered to have often heard at the New-year's Island. We failed in getting them nearer the ship, as they always knew how to avoid us by stratagem; they looked with great curiosity at the ship, but paid no regard to us. I sent out a boat to meet them, but, as soon as they saw it, they made off; being overtaken by it at last, they were much terrified, and threw bread-fruit, cocoa-nuts, and pandanus into it; but some pieces of iron that were offered to them diminished their fear, and they accepted them willingly; after much conversation, without understanding each other, they made for the fourth island, whither they invited us by signs. This first interview showed that we had to deal with good-natured people. Their manner of tattooing and dressing was the same as in the New-year's Island, and they are most probably of the same race.

Early on the 7th, I sent out two boats for the anchor we had left on the reef, and which they brought back in the evening. Our new acquaintances contrived to get near us; their heads were adorned with flower garlands, and they were in their best

dresses. I sent Messrs. Schischmareff and Chamisso to the fourth island, in order to court the friendship of these people; but, as soon as the old man saw our boat taking that course, he followed, loudly shouting, and we saw the two boats land.

Lieutenant Schischmareff gave me the following account of this excursion:—

"I steered towards the spot which seemed to me convenient for landing, whither the islanders followed me in their boat; on my approach, I saw some people, who had been walking near their huts, flying to the wood on seeing us. I went on shore near one of the huts, and finding it empty I went no farther, but waited for the boat of the natives, who, not being able to land where I had, went a quarter of a mile farther down. I left my people in our boat, and walked up to them alone; six men came out of the canoe, some of the fugitives met them, but soon went away with three of those that had just landed; the three others came to meet me. I could not understand what induced them to go to the wood; whether it was timidity or the plan of an attack; which latter, however, I did not fear, having a brace of pistols with me, and my armed people being at hand; yet, when they came near, I saw that they were unarmed, and were afraid of me. They stopped about twenty paces from me; an old man held something white in his hands, lying upon palm-leaves, and which he seemed to have destined for me, but did not venture to come nearer; however, he broke off a leafy branch from a tree, probably a sign of peace; I did the same, and went up to him; at first the man timidly retired, but at last he handed his present to me, constantly repeating the word *aidara*. I received it, and, although I did not understand the meaning of it, I also repeated *aidara*. I afterwards learnt that it meant friend. Hereupon the woman who was with him, and probably his wife, presented me a pandanus branch; and the third, a young man of twenty, who had no present prepared for me, handed me his own necklace, which I put round my hat; the old man then took a wreath of flowers from his head, which I put upon mine: this, it seems, encouraged them, and we went together to the huts, where our naturalist joined us, and was also presented with a necklace and flowers. I returned their presents by giving them iron, which afforded them much pleasure; the others from the forest came also, and were likewise presented with iron. We were now surrounded by thirteen islanders, who proved themselves friendly, but somewhat timid; they were all unarmed. The party consisted of a man of about forty years old, two elderly women and one young one, three young men aged twenty, and children from nine to fifteen years old; one,

however, was only three years old, and still carried in arms; the old man had a short black beard, and black hair, and wore a small mat round his body; the others had no beard; the young men likewise wore mats, but the children were quite naked. The women were wrapt in mats, from the waist downwards; they were all of rather a dark colour, but thin, of a tender make, and looked clean. The men were painted with several squares of a dark-blue colour, as on New-year's Island: the women had but few of these marks upon their necks and bosoms; they all wore in their ear-holes twisted leaves; their countenances bore an expression of kindness; and they all formed one family, of which the old man was the chief. Our naturalist gave him some water-melon seeds, and taught him how to sow them. I enquired where they obtained the water which I found they had in cocoa-nut shells; when they understood me, they took me to a place, almost in the centre of the island, where the rain-water, from the more elevated parts, was collected in a trench. We then went to the shore, where we found some large trees had been driven here by the sea, and which resembled oaks. On our return near the cottages, we were invited to that belonging to the chief, consisting of a roof, supported by four poles, under which two mats had been spread, whereon we sat down. A woman prepared a *pandanus*-fruit, by beating it soft with a stone, then the man squeezed the juice into a shell; and, although all this was performed with the hands, it was done cleanly; and, when the chief was going to hand me the juice, and something had fallen in, he took it out, not with his fingers, but with a splinter of wood: during this time our sailor was treated in another hut. We gave the chief two knives, some pieces of iron, and fish-hooks, and invited him to come on-board. Thus we had formed a new alliance, and the word *aidara* was frequently interchanged between us. Our new friends accompanied us to the shore, and assisted us in getting our boat back into the water."

The few people whom Schischmareff found upon the island gives me an idea that they have their settlement in another part. They brought me a white lump, resembling loose chalk; I afterwards understood that it was prepared from a plant, called by the natives, *Mogomuk*, the root of which has the appearance of a small potato, and is, after being dried in the sun, crushed and made into a fine flour; that which is prepared into lumps may be kept a long time, without spoiling. When it is used, some part is broken off the lump, stirred up in a cocoa-nut shell with water, and boiled till it rises into a thick pap; it is something like our potatoes in taste; the plant grows wild.

On the 8th, we saw the boat of our friends sailing eastward,

probably to carry the account of our arrival among their more distant friends. When I went in the afternoon to the island, I found it completely deserted. We had brought six goats, a cock and hen, and several seeds with us, which we intended to have left on the island. We landed opposite the chief's cottage, and then set our animals at liberty; the goats immediately fell to upon the fine grass that grew round the hut; the cock with his hen flew upon the roof of the same, of which the former took possession by loud crowing. I planted some yams near the cottages, and Mr. Chamisso sowed the seeds in different parts, which he thought best for their growth. After some slight examination, we found, that this island, like all the others, consists of the remains of corals. This production grows from the bottom of the sea, and dies as soon as it has reached the surface; from it, is formed, by the permanent depositions of the sea, a grey calcareous stone, which seems to be the base of all the islands, and gradually forms a surface of sand, which in time increases in size; by the seeds * which the sea throws upon it, it is covered with vegetation, and at last, by the falling of the leaves, forms a black, fruitful mould. In some places the island was covered with impenetrable forests, in which the pandanus-tree, which yields a lovely, aromatic smell, was the most frequent; the bread-fruit tree is often seen here, and arrives to an enormous size and height; but the fruit seemed to be out of season. Cocoa-trees are scarce, yet we found some young ones of this kind, which had been but recently planted. Of quadrupeds, we only saw rats of a middling size, and lizards; the former are so bold, that they ran round us without the least fear; we saw no land-birds. In a square trench, in a low part of the island, we found clear water of an excellent taste. When we left this spot, to which I had given the name of Goat Island, we saw the goats and the fowls in the places we had left them.

On the 9th, in the afternoon, having sent on shore for water, I was informed that people had been seen there, who had probably arrived during the night. The mate told me that he had been well received by them. He had seen neither women or children, but a very old man, whom he could not re-

* This seed, being enveloped in a strong husk, is of such a condition as to be driven upon the sea for years, without spoiling. It probably comes from the American coast, whence, driven by rivers into the sea, it is finally carried to these islands by the strong current, which, between the tropics, commonly runs from E. to W. To be convinced of the possibility of this, the reader will recollect the Japanese ship, which had been carried by the current, within seventeen months from the coast of Japan to that of California.

cognise as having seen before. The goats had taken up their abode in a small hut, close to the chief habitation. The natives only cast shy looks upon these animals, and, at every one of their motions, were ready to run away, and they all fled in consternation when an attempt was made to bring one near them. The mate endeavoured to explain to them, that the goats were a present from us, intended for their food, which they seemed at last to understand, as they often repeated the word *aidara.* The fowls they knew; they called the cock, *Kahu;* and the hen, *Lia-Lia-Kahu.* A piece of cloth which we had left yesterday in the hut was still in the same place; and they were very much pleased, when the mate divided it among them. We thought this a mark of great honesty, but found, on a closer acquaintance with them, that they were arrant thieves, and only acted so conscientiously through fear.

Jan. 10*th.*—Having resolved to follow the chain of islands to the east, I dispatched Lieut. Schischmareff, early in the morning, in a boat, in order to find out an anchorage that we might be able to reach in one day; for, the wind here generally blowing from the east, and very fresh during the day, great progress cannot be made in that direction. The lieutenant was compelled to return to the ship in the afternoon, owing to a storm. He had gone seven miles, without having found a safe anchorage; although the ground and the depth in many places were qualified for it, yet there was no spot protected from the easterly winds, which toss the ship very much, and expose the cables to the danger of being cut by the coral-rocks. He observed in his progress several coral-banks, which lay to the S. of the chain of islands: close by the reefs, connecting the islands, the bottom consists of fine sand, but of live coral, opposite the island. On passing Goat Island, he saw several people on the connecting reefs, profiting by the low water in passing from one island to another; all the other islands appeared uninhabited.

On the 11th, as there were difficulties and dangers in advancing with the boat, I resolved to make the attempt with the ship. This day being unfavourable for the undertaking, I remained at anchor. On going to Goat Island in the afternoon, I found one of the goats dead, probably owing to indigestion, occasioned by a change of food. Our anchorage I named Christmas-harbour, because (according to the old style) we spent this festival there.

On the 12th, the wind blew violently from the N.E., and did not appear favourable to my undertaking; nevertheless we were under sail at six o'clock, hoping, that, when the sun rose, we should have fine weather, as was often the case here. We tacked at first to some purpose, but, the wind becoming

stronger, and the atmosphere so dark, the land was concealed from us. The top-sails were obliged to be reefed, by which the braces were often snapped, and we lost much time. We should have borne these inconveniences, but, not a single ray of the sun beamed on the objects around us; the watch was at the mast-head, and the mate in the scuttle, and we were surrounded by shallows and coral-reefs! In an instant the ship was turned to the wind, and it was high time, for we were just about sailing over a bank, which the gloomy weather had concealed from our view: we had scarcely time to be aware of our dangerous situation, before the sun was again hidden by clouds, and we were in danger again. Most of these banks are just under the surface of the water, extending only a small distance, and rise perpendicular from the ground. In clear weather they are seen at a considerable distance, as every bank appears like a dark spot on the water; but, if it be dull, the whole surface is dark, and the danger is only observed when it is almost too late to avoid it. This was the case with us, for the ship was no sooner on a fresh course, than we discovered another bank; we tacked and re-tacked, and at last, rain coming on, we were enveloped in darkness, and the frequent blasts of wind snapped our braces again. I would not proceed farther, my only wish being to bring the ship safe back into harbour. After innumerable tackings between coral-banks and shallows, we succeeded in gaining our anchorage again, but in a very exhausted state, having been in a most painful situation for three hours. In this unsuccessful expedition, we advanced seven miles to the east, in which direction we saw land from the mast-head, and therefore supposed that we were in a circle of islands. The unfavourable weather continued on the 13th, one squall following another, some of which were so violent that I was afraid of my cable, but after a heavy fall of rain it became calmer. In the afternoon, I despatched a boat to Goat Island to procure water, which was done daily, in order to preserve the stock we had brought from the Sandwich Islands; rain-water not being fit to preserve, as it becomes fetid after six days. In the mean time, we saw a boat coming from the east, and landing on Goat Island, and the mate informed me he had seen people there, who had received him kindly, where even some women endeavoured to amuse him with dancing and singing.

On the morning of the 14th, we again saw a boat coming from the east, and landing on Goat Island; it was the second of the kind, and I now hoped for a certainty that the real abode of these savages was in the eastern part of the group. The mate whom I had sent to the island informed me, on his re-

turn, that he had found strange islanders, who had treated him with boiled fish and baked bread-fruit, and that the women also amused him with dancing and singing. The goats were still an object of terror to the natives, and to-day they were particularly frightened by one of them: when the mate went to the huts, the chief presented him with a nosegay, as a sign of peace; at the same time one of the goats ran towards his travelling companion, and in passing by tore the nosegay from the hand of the islander, so quick, as to strike him with his horns; accordingly, he and all his companions ran away, and the mate had great difficulty in bringing them back to their huts, after having driven the goats among the bushes.

The weather being very favourable to-day for our enterprize, I left the ship at two o'clock in the afternoon, with two armed boats, accompanied by the scientific gentlemen and Lieut. Schischmareff. There were in all nineteen men, and we had provided ourselves with provisions for five days. At three o'clock P.M. we reached the fifth island, where I resolved to pass the night. We happened to land when the water was at the highest, and could therefore conveniently get the boats into a channel which runs between the fifth and sixth island. This island is only half a mile in circumference. The interior of it consists of large dead masses of coral, covered with only two inches of mould, while that on Goat Island in some places is as much as three feet deep. This difference proves that the small island has been formed much later; and on the whole chain we afterwards found the observation confirmed, that the small islands, in comparison with the larger, are much more barren, the vegetation being very poor, as they are yet in want of mould, which is only formed, in the course of time, by the falling and rotting of the leaves. The place on which I stood filled me with awe, and I adored the omnipotence of God, who gave even to these corals the power of producing such miracles. My ideas became confused, when I thought of the time which must elapse before such an island, rising from the immeasurable depth of the ocean, becomes visible above the surface! Hereafter they will take another form; all these islands will unite, and present a circular tract of land, with a lake in the centre; and this form will also again be changed; for these productions, continuing to grow till they reach the surface, the water will disappear, and only one large island will be visible.

I also visited a sixth island, where at low-water I could go dry-footed, and found it similar to the fifth; the surf breaks on the banks which are exposed to the sea, with some violence; the foam rises several fathoms into the air; and large pieces of coral, probably broken off from the reefs by the waves, lie scattered about the land; a number of muscles of various sorts,

as well as pieces of coral, cover the shore. After having in vain looked about for a bird, which deserved a place in our collection, I returned back to our encampment. Our naturalists returned with a number of rare corals and maritime animals, and we listened attentively to their information, till we were disturbed by the rats and lizards which stole our biscuit. The gentlemen maintained that these rats and lizards did not differ from those in Europe: the question was put, where they came from? and this could only be answered by the wrecking of some vessel upon these islands. The same question was asked when we were annoyed by the common flies. We saw a species of shell-crab, which always carries its shell with it, creeping about the trees. Thus the evening approached, and our supper, which consisted of English patent-meat, filled us with gratitude to the ingenious inventor.

During the night we kept a fire burning, and two sentinels with loaded muskets, were placed at the sides of the encampment; besides this, we lay in our clothes, keeping our arms in readiness. Although these measures were almost unnecessary among such a kind-hearted people, I would not deviate from my original custom of using always the greatest precaution. The next morning, having been obliged to wait for the same height of water to float our boats, we were just on the point of starting, when we saw two boats coming towards us from the east. I resolved to wait for them, made the men keep themselves in readiness, and stood myself, with Schischmareff and the naturalists, unarmed, near the shore. Both soon anchored at a short distance, and the skill with which they brought their canoes under the wind, and took in their sails, proved that they were old seamen. Their sails consisted of fine matting, and had such an ingenious cut, that they must catch even the sharpest side-wind. One boat, in which we counted twenty-five men, was thirty feet long, had a small cabin on the *balancier*, and a quantity of ropes hung down from a very high mast. After having finished their work with a great noise, four men jumped into the water and swam towards us. One of them took the lead with a large shell-horn; the others followed with cocoanuts and pandanus-fruit, whilst those in the boats awaited silently the result of their embassy, which advanced with great assurance. The leader, with his shell-horn, distinguished himself to advantage, by his whole demeanour; he was a tall, slender man, about thirty years old; his black hair, neatly tied together on his head, was adorned with a wreath of white flowers, in the form of a crown; round the neck hung many ornaments of various colours; he was also differently, and more tattooed, which gave him the appearance of a man in armour;

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his countenance, animated by expressive eyes, was adorned by small mustachios and a pointed beard. Astonishment, fear, and curiosity, were visible in his countenance; but, conquering himself, he advanced with a majestic step towards me, and presented me, with the repeated exclamation *aidara*, with his shell-horn, which, as I afterwards learned, is used by the chief in war, and only delivered to his conqueror, and which they considered us, probably taking us for superior beings. His companions laid the fruit at my feet, looked at us with constrained friendliness, and trembling at the same time, particularly one, who seemed to be in convulsions. We endeavoured to encourage the embassy, and they seemed to be much surprised at our friendly behaviour. I had a red cloth spread out on the shore, upon which I invited the chief to sit down, seating myself by his side, whilst the others stood round us. He seated himself with great dignity, in the Asiatic manner, became more and more lively, and put many questions, at times pointing to the sea, to the sun, and sky. I at last understood that he wished to know whether we came from the sea or from heaven; and, when I made him comprehend that I did not understand his language, he became angry with himself, and spoke louder and quicker, while his eyes wandered from one object to the other, without however interrupting his conversation. If any thing particularly pleased him, he could not withstand the temptation of laying hold of it, and enquiring its use, and, when he understood it, he expressed his astonishment by a long-extended O——h! His companions, who uttered no sound besides, repeated it, and the third echo of the long Oh! came from the canoes. He always called out aloud to them what he had seen; Oh was repeated, and the conversation re-commenced, till a new object attracted his attention. Among other things he seized a tin box, which he examined inquisitively on all sides, and when I opened the lid he started back with his long Oh! He immediately told the people in the boat the wonderful event, and when I opened several boxes, he was quite dumb with astonishment, and there was no end to the monotonous exclamation. I shall call this man *Rarick*, as he was so called by his companions. After having conversed some time with the amiable Rarick, and he had forced upon me strings of shells and several other neat productions, I sent for some knives, scissars, and iron, from the boats; and they had scarcely perceived the latter, consisting of pieces of old iron hoops, than they again expressed their astonishment by a loud Oh! and the desire of possessing this treasure was visible in their fierce looks. *Möll! möll!* (so they called the iron,) sounded from every mouth; a terrible noise proceeded from the canoes; and six men, who

could not resist the attraction, sprang into the water and joined us, to look at the iron, the use of which they seemed to be aware of; and I afterwards found several pieces among them, which they had probably obtained from some wreck. I have even seen some beams among them, which seemed to be American timber. I gave Rarick some pieces of iron, a knife, and some scissars; he took the treasure with both hands, pressed it to his heart, and seemed to be at a loss to think how he came into the possession of so much wealth, which the others almost devoured with their looks. When it was their turn, their envious countenances cleared up; the shouts were dreadful; they jumped about with the iron like madmen, and cryed *möll! möll!* Their comrades in the boats became uneasy, some ventured on-shore, and, when they too received presents, the noise commenced anew. Now the alliance was formed, the savages became more and more friendly and jocular, and embraced us frequently. I made Rarick understand that I was going to the east, in which direction I supposed he lived; he understood me, and went readily into my boat: we started, Rarick sat by my side, and the savages brought their canoes under sail with great celerity, and began to tack, as their boats were not made for rowing. When we were obliged to keep at a little distance to be out of their way, Rarick lost courage, and thought it rather dangerous to be alone with us. His fear was visible in his motions, notwithstanding all his endeavours to conceal it. Something was frequently bawled to him from the canoes; the conversation between him and his subjects became more and more lively, his fear increased with every stroke of the oars; we endeavoured in vain to calm him, but, before we were aware of it, he was in the water with all his treasures, and swam quickly to his canoe, into which he leaped, and suddenly turned towards Goat Island. They probably had heard of the wonderful animals there, and were going to see them; my mate met them there, they looked with great astonishment at the goats, ran away terrified when one of them began to frisk, and then laughed at each other's fear. Our companions left us at three o'clock, and we made haste to reach the ninth island before sun-set, which we accomplished at seven; and I resolved to stay there for the night, my men being exhausted by rowing against the wind. We were now five miles from the vessel; I saw the sea still open in the east. We crossed the island in all directions without finding any people, who seemed to have just left their huts. In the middle of the island stood a house exactly like those in Goat Island, only considerably larger, and had the form of a Chinese temple; a square roof, neatly made of reeds pointed at the top, rested upon four columns, five feet from

the ground, forming a shelter from the sun, while the cool breeze blew through the columns; the ground was paved with coral-stones, the internal space from the top of the roof down to the columns was separated by a pretty lattice-work, in the middle of which was a square opening, large enough to creep through. The rats have undoubtedly induced the inhabitants to build their houses upon columns, for I perceived that their pantry was within the lattice-work, where the rats could not gain access, owing to the smooth pillars. Their sleeping-houses are built on the ground, and consist only of a roof with two entrances: their day-houses are large enough to contain from twenty to thirty people. The house that we visited was fitted with various utensils; fishing-nets, fish-hooks, lines, vessels made of cocoa-shells, &c. lay in strange confusion. It stood in the centre of a grass-plot, surrounded and shaded by bread-fruit trees, which grew so close together that the house could only be reached by a narrow path. This island seemed to be older than Goat Island, which we concluded from the luxuriant vegetation and the deep mould. Large cocoa-nut trees were also scarce here, but we saw young ...es of that kind every where, just planted; by which it seemed as if these islands were only lately inhabited. We encamped upon the shore. The nights here are very beautiful, and are preferable to other warm countries on account of no dew falling, occasioned by there being no evaporation from the coral islands. We could sleep quietly and without fear under the bright sky, refreshed and cooled by the gentle trade-wind, which, uninterrupted by any high island, blew upon us. After supper we laid down on our turf-beds, with the blue sky for our canopy; the sentinels were placed as on the preceding night, and we were only attacked by the rats.

On the 16th of January we were on our voyage as early as six o'clock; we found an anchorage near the ninth island, yet not so comfortable as our Christmas Harbour. It was noon before we reached the thirteenth island, having advanced four miles since the morning: here we rested for some hours. The island was only one mile in circumference, and was uninhabited, at least we could not see any traces of huts or water cisterns. From this place a reef extends to the south, which forms on the south-west side a small harbour, protected against the east. We climbed up a tolerably high tree and saw land in the south-east, by which my supposition that we were in a circle, was confirmed. In N.E., within a mile and a half of us, lay a small island, which seemed to be higher than any we had hitherto seen. After we had dined, the sentinels announced three people coming from the west, along the reef; the low water al-

lowed them this promenade; and, although the water in some parts is so deep that they must swim through it, the natives frequent this way with as much security as we should our high roads. I recognised through the glass Rarick and his companions, and they soon appeared among us, unarmed, and much pleased to see us again. My friend was very talkative, by which we gradually acquired a list of expressions, which we recorded when we thought we understood them; thus we learnt that a man was called *mamuan*, a woman *redgini*, a chief is called *tamon*, and such was Rarick of the whole cluster of islands. He now pressed me with great anxiety, and no one could comprehend what he wished to know; at last he named all his companions, next himself, and, as he was then looking at me inquisitively, we understood he wished to know my name. He was very glad when he found that he was understood, called himself by my name, and myself by his, endeavouring at the same time to learn whether I approved of the exchange. Knowing that it was the custom in the South-Sea islands to exchange names at the formation of friendship, I willingly accepted his offer; so that I was called Rarick, and he, as he could not pronounce my name otherwise, *Totabu*. Totabu's companions, in the mean time, exchanged names with the naturalists, and our connexion was afterwards greatly strengthened. Totabu's learned questions began anew: my gun, the use of which I did not venture to shew him, occupied him some time; our clothes were to him objects of unceasing curiosity; and our shoes excited immoderate laughter, particularly as one of them, on the first attempt to walk with them, measured his length on the ground. But their Oh's became extremely long and frequent when I took off my jacket, and they discovered my arm was white. All the treasures I had given to Rarick the day before, he carried with him, well wrapped up in pandanas leaves, sometimes taking them out to look at them, and to cut something quickly with the scissars, but he soon concealed them again in his girdle. A small looking-glass he always kept in his hand; he constantly looked in it; and his companions, whom he now and then allowed to peep, tried to catch their reflection, which afforded them no small amusement. In the mean time Rarick's boats landed near our island: he begged I would accompany him to his home, pointing to the east, and we agreed that he should sail before us, and we would follow him in our boats. We started at four o'clock, taking our course towards the island in the N.E. which I resolved to examine on account of its remarkable height. We reached it in an hour, but could not for a long time find any landing-place, it being surrounded by reefs, and, in order to satisfy our curiosity, we were obliged to

wade through the water up to our knees. The island, about as large as the one I had just left, had scarcely any mould, but was covered with enormous masses of coral, which rose irregularly one above another, and seemed to have been thrown there violently, which might have been occasioned by a storm from the north. Notwithstanding the small quantity of earth, trees, equalling our oldest oaks in height and bulk, grew between the coral. A great quantity of birds of the species of the sea-gull, which build upon the trees, made a terrible noise on our approach. Having found some very good anchorages near this island, I altered my intention of visiting Rarick; I hoped to penetrate with the Rurick to the end of the chain, and, in order to lose no time, I immediately set out to return, after having named the island Bird Island. A long reef extended from it to N.E., at the end of which we descried land; we had seen but few coral banks in our excursion. We reached the ship in the evening.

Observations made in Christmas Harbour.

Latitude of our anchorage, the mean of daily observations	9°	32′	36″	N.
Longitude from distances between moon and sun, the mean of a great number of observations made on several days	190	6	50	W.
Variation of the needle	11	0	0	E.
Dip of the needle	17	55	0	

On the 6th of January, the day when we reached the anchorage, our chronometers gave the following longitude, corrected from the last lunar observations.

Baraud's chronometer	190°	13′	30″ W.
Hardy's chronometer	190	6	48

The longitude of Christmas Harbour has been determined by Baraud's chronometer, which only differs seven miles; this improvement I afterwards made on sketching the chart.

On the 18th we weighed anchor with a N.N.E. wind, and at noon, after some difficulty, we reached Bird Island. The greatest depth which we found on approaching the centre of the circle was 31 fathoms; the bottom consisted of live corals, small pieces of which were brought up with the plummet; near a reef the depth was between ten and twelve fathoms, and the bottom consisted of fine coral sand. At four o'clock P.M. we reached the seventeenth island, which forms the north point of the whole group, and cast anchor at three-quarters of a mile from it, in fifteen fathoms, in fine coral sand. There we rode as securely as in the finest harbour, the ship being entirely protected from north to east, and the water as smooth as a mirror. We now overlooked the whole of the east part of the group, con-

sisting of small islands lying together, which, from the seventh, took its direction to south-east. The seventeenth island, rather larger than Goat Island, is covered with a luxuriant verdure, and large trees, among which we particularly noticed several cocoa-nut trees. We saw several huts; people walking on the shore, were astonished at the large ship; boats sailed for S.E. others came from thence, and it seemed that we were only now in the inhabited part of the island. We were visited by some natives in a sailing boat, and one of *Rarick's* companions gave me some cocoa-nuts, while he repeatedly exclaimed, *Rarick! Totabu! Aidara!* We gave him some iron, but nothing could induce him, or any of his companions, to come on-board. The naturalists went off in a boat to the island, and the savages sailed off at the same time with them. The distance from Christmas-harbour to this spot, in a straight line, is twenty miles. Our naturalists, who returned in the evening, were very much pleased with the reception they had met with from the natives. They had seen only thirty of them; and an old man, whom they supposed to be a chief, treated Mr. Chamisso with a composition made of pandanus and bread-fruit, of an agreeable taste.

On inquiring after *Rarick*, they pointed towards the S.E. and told us that the seventeenth island was called *Ormed*, and an island in general, *Enns*.

On the 19th, our friends from Goat Island arrived here, but would not approach the ship within twenty fathoms; after having shown us some cocoa-nuts, they sailed towards the island, which was rather singular, as we had treated them with so much kindness. They looked at the ship with great astonishment, talking and gesticulating vehemently, frequently calling out, *Ellip Oa!* (large boat). I have noticed that the natives of this group are advantageously distinguished from the Easter and Penrhyn's Islands, by their calm reflection and consideration, qualities which are by no means attached to the latter. In the afternoon I went on shore; our friend from Goat Island had already announced me as the *Tamon Oa Ellip* (commander of the large boat), and they all hastened to the shore to welcome me; a very old man, with a long grey beard, whom I recognized as the chief, said, *Aidara;* he presented me with some cocoa-nuts, and made me enter his hut, where we sat down upon mats, spread out between the four columns. The rest of the men, and some very pretty women, with infants in their arms, formed a circle round me; and all looked at me with silent astonishment; but this silence was suddenly interrupted; panic-struck, they all ran off with loud screams, except the old man, who, tremblingly, kept hold of my arm: the whole con-

fusion was created by a dog, which had followed me from the coast of Chili, and had got into the boat unnoticed. In order to get at me, he was obliged to jump over the shoulders of one of the natives, whose unexpected appearance created this ludicrous scene, which became yet more laughable, when the animal, which was at other times very timid, encouraged by the cowardice of his antagonists, began to bark at them, which drove them up the trees, upon which they climbed with the dexterity of monkeys. I had great difficulty in persuading the old man of the harmlessness of the creature, and, when I had at last succeeded, he called back his subjects, who gradually came, sneaking, and still keeping a jealous eye upon their foe, whose least motion threw them into convulsions. As they know here no other quadruped than rats, which they call *Didirick*, they called the dog, *Didirick Ellip*. It was only after I sent their tormentor to the boat, that their countenances cleared up again, and the old man presented me with cocoa-nuts, and a cake made of pandanus-juice, and which they call *Magan*. I now produced my presents; a large hatchet and two knives particularly enraptured the old man, having never seen so large a piece of iron, but, when I split a piece of wood with it, the whole circle exclaimed Oh! As they chiefly employ themselves in building boats, for which they have no instruments but coral-stones and shells, some idea may be formed of the value they attached to a hatchet. If the men were gratified with knives, the women were still more so with beads and looking-glasses. After having sufficiently admired their treasures, their curiosity was turned to me, but only the old man attempted to touch me. He spoke to his subjects at some length, and they listened to him with gaping mouths; they made me strip my arm, which they touched, to convince themselves that the white skin was not some sort of cloth. I perceived for the first time a sort of modesty among the women, which is quite different from the conduct of the other South-sea Islands. In vain the men tried to persuade them to touch my arm, they refused it with much grace. This natural modesty of the women, I had afterwards frequent occasion to admire. When I put my watch to the old man's ear, the ticking of it made him start back with terror; they all listened, were much pleased with the gold, and the motion of the second-hand astonished them greatly; but, when I made the watch repeat, they became almost afraid of my sorcery; they went aside, talking very seriously upon the matter, till I encouraged them again by some presents. It was then their turn to make me presents; the women gave me neat rows of shell, which they took off their heads and placed upon mine, the men took off their neck-

laces, made with great ingenuity of red coral; the old man gave me a pretty mat, making me understand that I should sleep upon it; and at last both men and women began a song, which, being addressed to me, was probably meant to express their gratitude. In a walk which I took through the island, several of the people accompanied me, and one walked before to show me the best way. I was unarmed, for, among these kind children of nature, who, to amuse me, went playing and dancing before me, I was perfectly safe. The island seemed to be older than all the others which I had hitherto seen; I saw pandanus and bread-fruit trees of an uncommon height and size, but the cocoa-nut tree was scarce, and those for the most part recently planted. Near the houses I perceived a plant with beautiful blossoms, which they only cultivate for the purpose of adorning themselves with its flowers, a trait which shows that these savages have made a great step towards civilization, and that, by reasonable Europeans, they might be brought to the most polished state. On passing by a cocoa-nut tree, I perceived a stone tied to one of its branches; and, when I asked my attendant what it meant, he told me, *tabui*, at the same time giving me to understand, that the fruit must not be eaten. The word *tabui* is very similar to the tabu (taboo) of the other South-sea islanders, and seems also to have the same meaning, but I never heard it again afterwards: it would also be worthy of remark, if we could find words here, which, by their similarity, could prove that the natives of these islands came here from the east; but, from all the words which we had hitherto noted down, we could not find one that led to this conclusion, except the above mentioned. Near the shore we saw a plain tomb, forming a square, built of coral-stone: it seemed to me that the natives were not permitted to enter it, and I afterwards learnt that the chiefs are buried there, and all other corpses are thrown into the sea. In the evening I parted with my friends, who accompanied me to the boat, where they saw a musket, of which they wished to know the use; I gave them to understand that it made a loud report, when they thought it was used like their shell-horn. The old man gave me some more cocoa-nuts, calling out *aidara*.

On the 20th, we were under sail early in the morning; a fresh N.N.E. wind favouring the S.E. course, parallel with the chain of islands.

We found the breath of our anchorage	9°	33′	16″	N.
Longitude of the chronometer	189	49	2	W.
Deviation of the needle	12	14	0	E.

After having sailed rapidly for one hour, without any interruption from coral-reefs, we descried in the S.E. an island,

much more extensive than either of the others. I steered my course towards it, and my hope of being within a circle increased, when I also discovered land in the S. At nine o'clock I dropped anchor, at a quarter of a mile from the large island, in eight fathoms, over fine sand, and we lay here in an excellent harbour, and in perfectly calm water. A boat, which started from Ormed with us, we found to our astonishment, had sailed as fast as the *Rurick*. I sent Mr. Chamisso on shore, to learn whether this was *Rarick's* residence. He returned within an hour, informing me that Rarick was here, and would come to see me shortly; also that he had not found any thing that announced the abode of a great chief; every thing resembled Ormed; even the population was small, only amounting in the whole to sixty inhabitants. In the afternoon a boat pushed from the island, and we soon recognized *Rarick*, who called out—*aidara!* from a great distance. He was most splendidly adorned with rows of shells and flower-wreaths, with various ornaments about the neck, and his body wrapped up in matting. He went on-board without hesitation, followed by a few of his companions, who took courage from his example. Their amazement on first stepping upon deck baffles all description, and they would not have advanced a pace farther, if I had not taken Rarick by the arm, and led him forward. At last he recovered from his astonishment, and showed himself more dexterous, inquisitive, and childish, than ever. He jumped from one object to another, felt it with both his hands, asked its use, but never waited for an answer, immediately laying hold of something else; there were too many things that drew forth his attention; curiosity and fear alternately changed on his countenance, he jumped about the deck like a mad-man, first laughing, and then denoting his surprise by heartily exclaiming Oh! but, when any thing struck him in a peculiar manner, he cried *Errio! Errio!* (a word which I have often heard upon such occasions.) His attendants also took great interest in the objects around them, but did not dare be so loud in the presence of their chief. By a fault of mine I had almost frightened away my friends: we had two live pigs remaining, which I intended to leave on the island—in order to learn whether they knew these animals, I had them brought out; but this created dreadful confusion, as they no sooner came forth, than they made a dreadful noise. My guests were terribly afraid, *Rarick* took fast hold of me, trembling all over, and screaming louder than the pigs, which I quickly ordered to be taken away again. Our islanders, however, had lost their spirits for the day, and even my presents could not completely restore them. I invited *Rarick* to come into the

cabin, but he prudently dispatched one of his attendants before him, who obeyed him with evident fear, and walked slowly down stairs; but they had scarcely entered when they evinced great surprise at the quantity of shining articles; and, covering their faces with both hands, they exclaimed *Errio! Errio.* A gaze into the looking-glasses at first terrified them very much; struck dumb with astonishment, they looked at each other, and then again at the glass; but, when they had recognized themselves in it, they embraced each other, made the most ridiculous grimaces, and laughed immoderately. *Rarick*, hearing this above, could no longer resist; with one leap he was with us, and his shouts soon surpassed all bounds. They looked like wild children, although the grey beard of one of them betrayed his old age: I have often made the observation, that old age here does not supersede their childish mirth; some who could hardly stir from age, took a lively share in every thing with a youthful spirit, and I never saw them dissatisfied. Probably it is the fine climate, and their living only upon vegetable food which has this singular effect upon them, and the latter may also be the cause of their tall and slender make. Their bones are like those of women; their hands and feet diminutively small. They have little exertion, their only occupation being boat-building; the boats are long and narrow, and lie deep, which enables them to sail against the wind; the sails and ropes are very cleverly made by the women, of the bark of the cocoa-tree. The people are gentle and timid, but they seem sometimes to carry on war, since they are in possession of lances, which are badly made of wood, with hooks or shark's teeth at the top, with which they may certainly inflict severe wounds. Returning upon deck, we found some more islanders, who had come in the interim, and who were told much by their companions. I again made presents to all of them, and Rarick was so much pleased with a red apron which I tied round his waist, that he immediately sent for a quantity of cocoa-nuts from the boat, and presented them to me. I accompanied him on shore in his own boat, while the naturalists followed us in ours. Rarick took us to his house, which was only distinguished from the others by being more capacious, and treated us with a beverage made of pandanus-juice, of a sweet aromatic taste. Going to a place where they were building a canoe, I saw a piece of iron, four inches long and two broad, which they used as a hatchet, and which had not been given them by us. On inquiry, they explained, that a large beam had been drifted to the island from N.E. that had an iron hoop round it, which they took off, broke in pieces, and divided it among themselves. The keel of the new boat, which had been scooped out with

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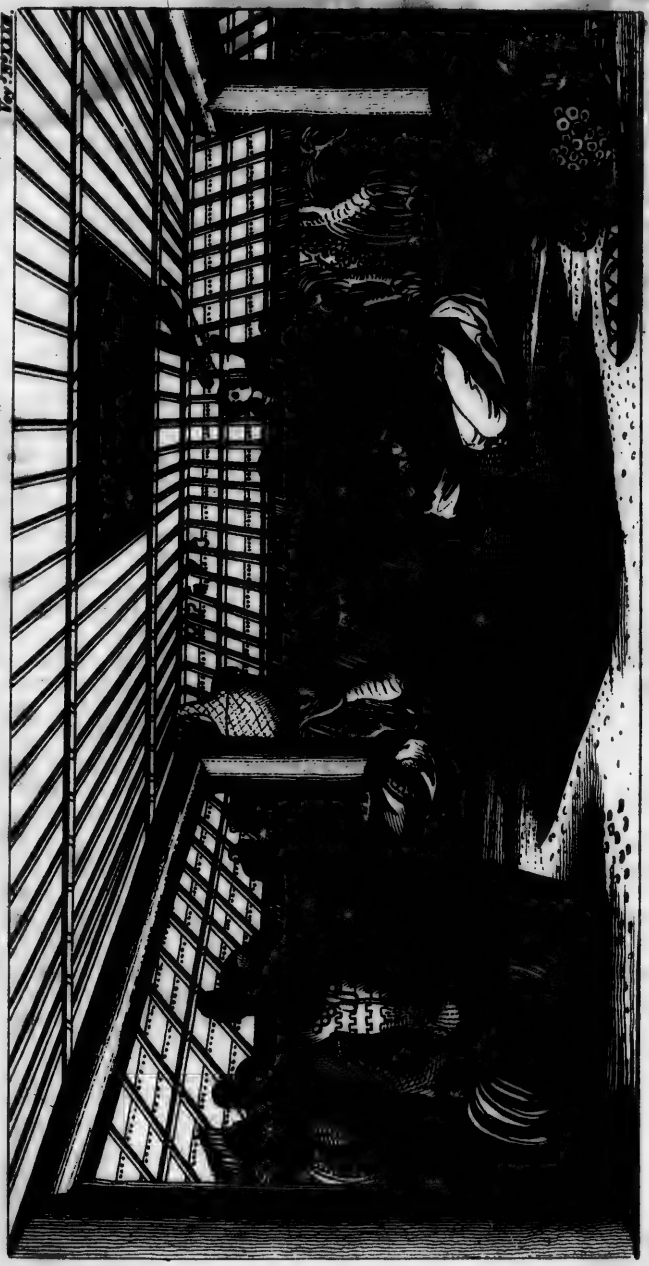
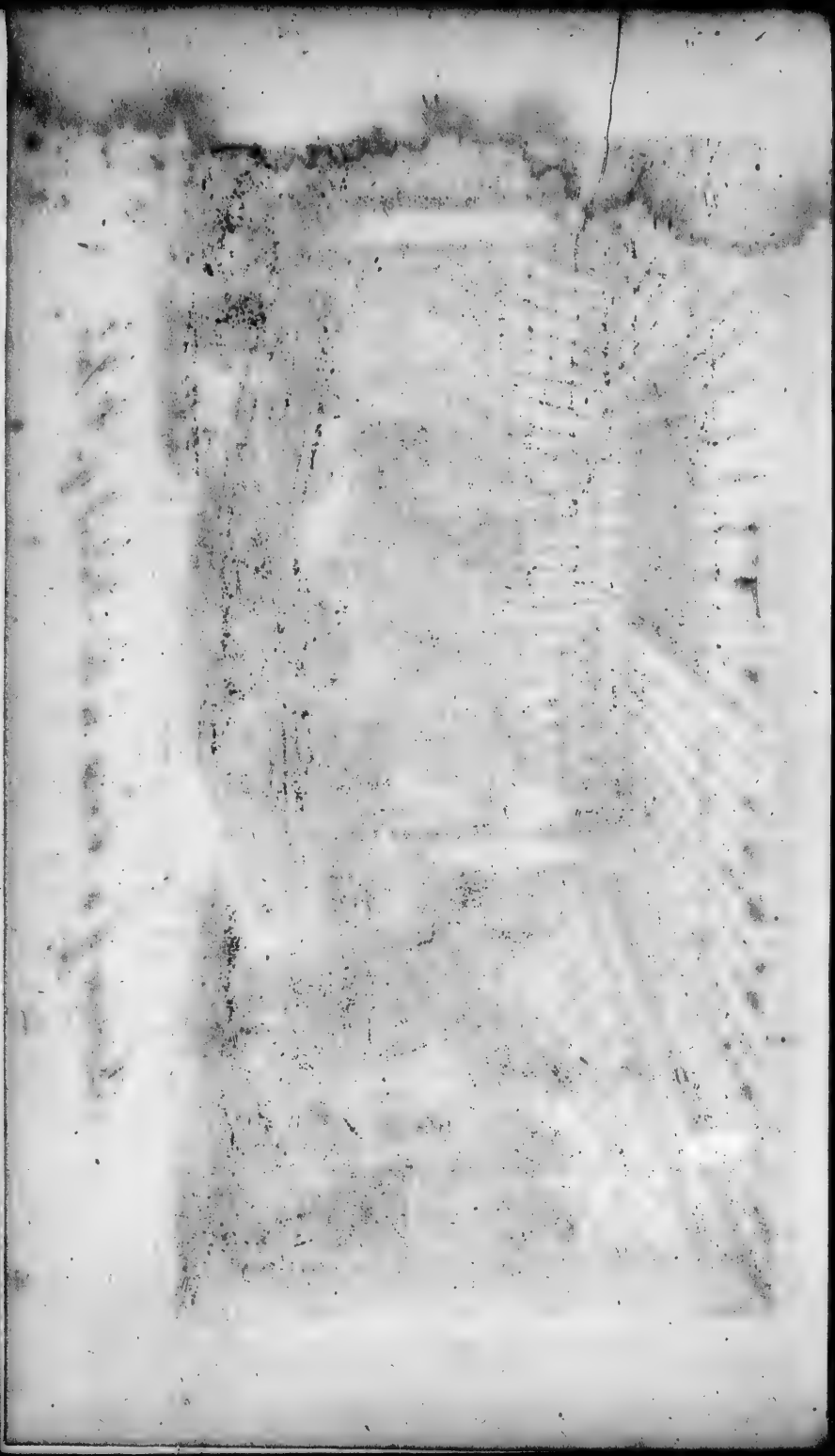


Interior of a House on the Island of Radack.



great labour, with this piece of iron, was laid, and they must require at least a whole year to built a boat twenty feet long. The keel is usually made of the bread-fruit tree, and they would build the whole boat from it, if the fruit of it did not form part of their sustenance; as it is, they must contrive with drifted wood, which is brought hither from the east, either from some distant islands, or from the coast of America, and which is sometimes very difficult to work. Not being able to make long deals with their bad tools, they use for the external lining of the boat small pieces of board, which they fix together by means of cocoa-lines. These boats look at first sight old and patched, but they stop up every hole and crevice so carefully, that very little water can penetrate; perhaps they will make them better in future, by the assistance of the axe and hatchet which I gave them, as I taught them the use of those tools. *Rarick* and some islanders accompanied me on a walk through the island, which was five miles and a half in circumference. The mould was beautiful, and in some places had even formed small hillocks. Bread-fruit and pandanus trees are very numerous, and the latter have a peculiar appearance, the naked roots standing some feet above the ground, and making the tree look as if it was raised upon feet. On our return, we passed by a hut, where I was struck with the appearance of a woman, who seemed a hundred years old, and parched and withered like a mummy; she was bent with age, which had not affected her tongue, for her loquacity was unbounded; at the same time her toothless mouth seemed to abound with wit, as my companions laughed very much. We saw several children, which made the thinness of the population still more surprising, and, like the recent plantation of cocoa-nut trees, seemed to indicate a new settlement of people on these islands. I was particularly pleased with the demeanour of one of my companions, an aged man, who seemed to possess much sound sense. Lagediack was the name of my new friend and tutor, for I had really learned more words from him in one hour, than from others for several days; I learned from him that the name of this island was Otdia, and that the whole group was named after it. I found it every day easier to understand the language of these people, as it had no copulative terms whatever. I invited my friend to come and see me the next day on-board, by pronouncing the following words, *Ildiu, Legediack, Waedack, Oa* (to-morrow Lagediack come ship); he understood me perfectly, answering *Inga* (yes), and embraced me with additional fervour, because I understood his language. I resolved to stay some weeks in Otdia, partly with the intent of visiting the southern group of the island with boats, and partly in order

to get acquainted with the language and customs of this remarkable people. I had no reason to regret this resolution, as by it I was afterwards enabled to make further discoveries.

On the 21st, in the afternoon, I was visited by two boats, in one of which was Rarick, with his suit, and in the other the chief of Egmedio, a small island, south of Otdia, distinguished by a grove of old cocoa-nut trees, situated in the centre of the island, and overtopping all the others. This, the high Bird Island, and another south of our anchorage, are the three main points that present themselves to the eye of the navigator, on arriving near the eastern part of the cluster.

Rarick now introduced to me the chief of Egmedio, named *Langin;* he was a man about thirty-six years old, of the middling size, and very spare; his whole body was tattooed, his dress neat, his conduct modest, and he was excessively timid. My friend Lagediack came with Rarick, and the latter was now bold enough to suffer himself to be led to the place where the pigs were kept, in order that he might look at them more attentively, yet at the least grunt he was ready to fly off. Langin climbed up the mast, from which elevation he looked down upon them. They had courage to play with my little dog, but, when he barked at them, all friendship was at an end, and in an instant my guests climbed the rope-ladders; they could never afterwards be reconciled to his sportiveness, and were better pleased by a dog which I had bought in Behring Strait, of the breed used for drawing sledges in Kamtschatka; his skin resembled that of the ice-bear; born in a cold country, he could not bear the heat of this hot climate, and soon died in convulsions. After the savages had satisfied themselves with looking at the objects of luxury, their attention was attracted by the iron; a cannon or an anchor appeared to them an immense treasure, which they examined with loud cries of *Möll! Möll!* I endeavoured to learn from Lagediack, whether he knew any other cluster of islands besides this; he at last understood me, and exclaimed, pointing to the south, *inga eni cef-cef* (yes, islands there). I immediately ordered the compass to be fitted up, round which they all assembled; Lagediack, in particular, soon found out, that, when the case was turned, the needle constantly kept pointing to N. and S., and wished to know how this was effected; I was at a loss to answer this question (even if I had been perfect master of his language), upon which I yet required information myself. He, however, turned the case, till the needle pointed to S.W. the direction where the islands lay, which I immediately noted down upon the slate. Writing was again an object of great

astonishment to them; I explained to Lagediack that every thing we spoke might be written down, wrote down his name, and said, that is Lagediack; he was terrified to see himself represented by such strange characters, and seemed to apprehend that he might, by some enchantment, be changed into those shapes; the others laughed at the funny Lagediack on the slate, I soon relieved him from his painful situation by rubbing out his name; he embraced me with gratitude, and begged me to write Langin; but the latter, who had all the time been looking at my sorcery at a distance only, ran screaming loudly to the other side of the ship, where he concealed himself, while his companions laughed at him, and I finished the sorcery for the day. I made Lagediack understand that I wished him to draw the group of islands of Otdia upon the slate; he took the pencil and drew it in a circular form, making, under the wind of them, five passages, which he called *tier*; he then turned the diopters of the compass to the island in S.W., saying, *ef, ef, ruo tier* (there, two passages). He now drew the other group of islands, which he named *Eregup*, and marked them as a circle of seventeen islands, with a passage under the wind; then pointing to the east, he gave me to understand that, by sailing from hence at sun-rise, one might arrive there at sun-set. He farther told me that on Eregup were to be found bread-fruit (*mia*), pandanus (*bob*), and cocoa-nuts (*ni*); but, he said, the population only consisted of one old man with three wives. When my guests left the ship, I gave Lagediack a hatchet, but Rarick almost seemed to envy him. Some of our gentlemen exchanged their names; Langin called himself after Lieutenant Schischmareff, Timaro; and Chamisso's friend called himself Tamisso; this being the only way in which they could pronounce these names.

With an intention of forming a garden on Otdia, and sowing some of the seeds from Sandwich Islands in the presence of the natives, I went on-shore in the afternoon, accompanied by Mr. Chamisso, in order to select a piece of ground for that purpose. We found an open spot near Rarick's habitation, in the vicinity of a water tank, which answered our purpose, the mould being very excellent. On our return we again fell in with a tomb, similar to that we found on Ormed, and planted round with cocoa-nut trees, and which they told me was that of a tamon.

On the 22d, in the morning, we were visited by several canoes, in which the people brought us cocoa-nuts; as often as any of the natives came on-board, I endeavoured to quell their fear of the pigs, because I intended to take them on-shore soon. After dinner I went on shore with Mr. Chamisso, accompanied by several sailors with spades, for the purpose of

making the garden. All the inhabitants assembled round us, looking at our work with surprise, the design of which we could not make them comprehend, till they saw us put the seeds in the ground. While the ground was being dug, some sailors were employed in making a fence, in which Lagediack joined them, although he had not been requested to assist. The natives were particularly astonished at the latter part of our work, a fence being quite a novel thing to these happy people. When the garden was partly finished, we told Lagediack that they might expect to find here plants and eatable fruit, and a leap of joy indicated that he understood us. He now told the people at full length what was our intention, which was followed by general shouts. We finished our work for to-day, because we did not wish to fatigue the people, and I explained to Rarick and Lagediack that it was their garden, and that the fence was intended to keep every one else out of it; this he likewise immediately proclaimed, feeling himself highly honoured by the distinction; and, having made two different knots of pandanus-leaves, which marked his as well as Rarick's sign, they were hung upon the fence, as a proof that they were the joint-owners of the garden; being such knots as are frequently found upon trees, which they mark as their property, and the owner is distinguished according to the manner in which they are made. Before we returned on-board we took our tea, the utensils and preparations for which severally afforded them subjects of wonder, conversation, and laughter; particularly the water boiling in the kettle, which they thought was alive. I persuaded Rarick to take a cup of tea and taste it; unfortunately it was hot, and he scalded his mouth, and it was with difficulty that I saved my cup from being thrown away. The fright was communicated to all as if by an electric shock, and every one of them was on the point of running away. At last, however, Rarick made up his mind to taste the tea, while the rest looked at him with astonishment, and, when he found it relishing, they all wanted some, and denoted by loud smacking how much they liked it; they also relished the biscuit, but particularly the sugar, as they are all fond of sweets, which forming their chief nourishment they draw from the sweet pandanus-fruit, and this may be the reason that even children of ten years old have seldom sound teeth, which they almost entirely lose at a middle age. This was the first time the natives had been induced to taste our victuals, a proof of their confidence; but, at the same time, with this confidence, their inclination for stealing was likewise developed, and Rarick himself set an example of it: the bright silver spoons excited his cupidity so much that he tried to conceal one of them in his girdle, and was only pre-

vented from doing so by a joke. We, however, missed a copper measure, which the sailors were in the habit of using as a drinking-vessel, and, after much searching, it was found hid among the bushes. On discovering this vice among the islanders, whom I had thought hitherto free from it, I expressed my disapprobation to those that were about me, and ordered my people to be more circumspect for the future.

On the morning of the 23d Rarick and Langin, with a numerous retinue, paid us a visit, and we received them with our usual cordiality. They now went to all parts of the ship without any apprehension, the guns, however, still exciting in them some curiosity, and they fancied that they were used by us in the same manner as their shell-horns. One of Langin's companions stole a knife from the cabin, which we again recovered, and he was very much ashamed. Langin was exceedingly vexed, and left us to sail for his island, whither we were invited. In the afternoon we went on-shore to finish the garden, where we found that the rats had committed great devastation; even our presence did not disturb them, some of them continuing to pull out the seeds, while others carried them off. I made Lagediack understand that the whole of the garden would soon be destroyed, if they did not watch it, and the depredators were consequently soon chased with sticks and stones. We repaired the injury, and planted the remaining part with arbuses, melons, maize, beans, peas, lemons, and yams. Lagediack was well aware that all these vegetables were eatable, and we now had only to explain the manner of cooking them. I therefore divided a baked yam among them, which they found so agreeable that they attached more interest to the garden. We distributed a quantity of seeds among the people, for them to sow where they pleased; Mr. Chamisso here, as well as on the other islands which we touched during our navigation, was unwearied in sowing various seeds, and I am certain that his endeavours have not been in vain. The food of the islanders, in this season, consists solely of pandanus fruit, and they consider the cocoa-nuts, of which but few grew on these islands, as dainties. The pandanus, however, contains but little nutritious substance, and, besides, being by no means abundant, an idea may be formed of the frugality of their habits, which seems to agree with them, as they attain a long and cheerful old age. A triple increase of the population would produce starvation among them; which calamity, however, we hope to see obviated by the sowing of seeds. It is singular that fishing is so much neglected by them; as only a few times during my stay I saw the people angling for a species of small fish from among the reefs. A cock and a hen, the remaining stock of our poul-

try, I gave to Lagediack, whose pleasantry recompensed for the loss of the birds.

On the 24th, we fixed a forge on the shore, several iron utensils wanting repair. The novelty of the scene attracted all the natives, who looked with amazement at the fixing of the machine; but, when the bellows began to work, the coals to burn, and the fire-sparks to fly from the beaten iron, the men laid hold of their wives, these of their children, and all fled. Lagediack was the first whom we could convince of the unreasonableness of his fear; and, to prove to him the utility of the forges, we made a neat harpoon very quickly, and gave it to him. His joy at this present was excessive; holding it above his head, he called back his comrades, who, encouraged by his example, again collected round us. Another harpoon for Rarick, and some fish-hooks for my favourites, were made in their presence, and their attachment to us increased in the same proportion, as every new art raised us in their estimation. The forge was left on shore for the night, under the care of the smith, and Lagediack promised to watch, in order that nothing might be stolen.

The 25th.—The night passed on shore without any one attempting to come near the forge. When the work was begun again in the morning, an old man laid hold of a piece of iron, with which he ran off; but his comrades, pursuing him with the cry, *eabuderi!* (stealing,) overtook him, and were obliged to take away his prey from him by force. Without the least embarrassment he returned to his seat, raving against all who had pursued him, and immediately after tried to seize upon another piece, when he was effectually driven away. This old man, who was here on a visit from another island, could hardly be called a thief, as he committed his robbery publicly, and merely tried to exercise the right of the strongest.

On the 26th the pigs, to which the islanders had by this time become accustomed, were brought on-shore and given to Rarick, near whose hut they were placed within a small enclosure. A sailor was left on-shore for some days to teach the inhabitants how to treat these animals. Rarick was still so much afraid of them that he would not approach them; when, on landing, their grunting struck upon his ear, he and the women, who had never been on-board, fled at the sight of them into the woods. I wandered through the island with my gun, hoping to meet with some land-bird that I might shoot, but I saw none, except a few wild pigeons. Rarick and Lagediack accompanied me, and, wishing to give them an idea of fire-arms, I shewed them a water-snipe, standing at about fifty yards from us, on the shore, and shot it; but in the same mo-

ment I repented my rashness, as both were lying at my feet, whining aloud, and hiding their heads in the grass. It was only after repeatedly assuring them they had suffered no harm, that they rose up, but still trembled and looked timidly upon the gun, which was placed against a tree. The sight of the bleeding bird was not calculated to make a joke of the matter; they remained mistrustful and timid, and ran away as soon as they thought themselves unnoticed. I had great difficulty in regaining their confidence; I never dare shew myself again with a gun.

On the 28th, at seven o'clock, I left the ship, in company with all the scientific gentlemen, in two boats, stocked with provision for three days, in order to profit by the fine weather, for the investigation of the passages pointed out by Lagediack. We first went to Langin's island, *Egmedio*, where we arrived in an hour, and were well received by him. He immediately conducted us into his hut, where he ordered his wife to bring various refreshments, and he could find no end to his expressions of joy at our arrival. Langin, whom we found here a hospitable kind man, was superior to Rarick, who did not answer to the first idea we entertained of him, the chief feature in his character being covetousness. The population of Egmedio consisted only of Langin, his wife, and two men, who seemed to be his servants. We now knew from experience that this cluster of islands was very thinly peopled, the southern part of it being entirely uninhabited. There seems to be no accounting for this thin population, except that a short time ago a few people were thrown here from some distant islands, or that they had intentionally settled on this cluster from some overstocked islands. Langin led us about his country, which is distinguished from the others by its high cocoa-nut trees. During our breakfast, he perceived that I was very much annoyed by the flies, and immediately ordered one of his men to drive them away from me with a palm-branch, an attention from a savage which agreeably surprised me. At one o'clock in the afternoon we reached the passage near the high island, the breadth of which, in the narrowest places, was a hundred fathoms; its depth was irregular, and decreased from twenty fathoms to five, and, in some places, to three fathoms; the island consisted of various pointed corals. It was just ebb-time, and the current was running with tolerable velocity out of the cluster; we went out with it into the sea, and we had scarcely got out of the passage when we could find no bottom with the line. It was possible, but dangerous, to pass with the Rurick. I called this passage *Lagediack*; it being too late to examine the next passage, which was in the west, we intended returning to the Rurick,

but, the wind being very contrary, were obliged to take up our quarters for the night on the large island, which lies south of Egmedio. Happily we found one of our favourites, Labugar, who lived on this island with his family, and an old man, who presented us with cocoa-nuts and pandanus. We encamped near the shore, and Labugar and his old friend amused us till sun-set. When we awoke in the morning, Labugar with his family sat at our feet, where they had been patiently waiting to present us with cleaned cocoa-nuts. I saw here a piece of wood, evidently a knee of a ship, with a few rusty nails still in it. We reached the Rurick at noon.

On the 30th, I sent some of my men on shore, to fell some trees, as I wanted to take in a large stock of wood, there being none to be had either in Unalaska or Behring Strait. On coming on shore myself, I was told that a bucket with iron hoops had been stolen; and to prevent a recurrence of such a theft, I resolved to be severe this time: I peremptorily demanded of Rarick, that he should immediately discover the thief with his booty, and he, much terrified at my countenance, which he had never seen so serious before, assured me that he had already been informed of the circumstance, and had sent after the thief, who had fled to a neighbouring island. I was satisfied with this declaration, but afterwards had reason to think that he was concerned in the matter.

On the 31st, I learned that the bucket had not yet been returned. Rarick was much embarrassed when I asked after the thief; with vexation on his countenance, he addressed himself to one of his people, who, at the conclusion of a long speech, jumped up and ran into the thicket; "this is the thief," said Rarick, "and he will instantly restore the article." I perceived with pleasure, that all who were present expressed disapprobation, particularly Lagediack. After ten minutes the thief brought back his booty, and, although vexed, I pardoned him. I told the people, that, in future, every thief would be severely punished. We then returned on-board, where we were just about to dine, when we were joined by Labugar, Rarick, and a talkative woman, belonging to his family. This female, the most disagreeable of her sex, was the first who had ventured to come upon deck. On our invitation, the men went down with us into the cabin, but the woman took her station on the forecastle, where she looked down upon us through the window. The merry Lagubar ate every thing that was laid before him, asking, at the sight of every dish, "what is that?" but he swallowed it before he could obtain an answer, and took care to promote digestion by hearty laughter; even the salt-pork, which we told them was of such animals as they had seen on land, he relished;

and Rarick, taking courage from his example, at last joined him in the repast. The woman carefully preserved every thing that was handed to her through the window, at the same time opening her mouth widely, to show us that she had lost all her teeth. Lagubar was particularly pleased with the wine, and clasped his stomach as he swallowed it, lest it should run out again; but, when he had drank two glasses, he was quite merry, and began to play the most silly tricks. After dinner we treated our guests with a concert. Three sailors, with a violin, flute, and tambourine, all of them novices in the art, were sent for in the cabin, and their performance seemed heavenly harmony to our savages. The greatest attention was excited by the violin; they would not believe that its sounds were produced by the bow, and took care they did not approach too near the enchanted instrument. They left us in high glee. We went on shore in the afternoon, and were pleased to find that some of the seeds had already sprung up. We also saw some small gardens which were laid out in various places by the natives; and we could say in truth, that our seed had fallen upon good ground, and promised excellent fruit for the future.

On the 2d of February, I visited Lagediack. He described the situation of the cluster of islands, Eregup, in the following ingenious manner. He drew a circle, about the shape of the cluster of Otdia, on the sand, on this he placed a number of large and small stones, representing the islands; after he had pointed out the several passages, he said, this is Otdia. He then represented in the same manner the cluster of Eregup, saying that, if I sailed for a day towards S.W., I should reach it. I now asked him, whether, by steering to N., E., S., or W., any islands could be met with. He understood me; and, having collected a large number of stones, he drew, N. of Otdia, three clusters of rather a smaller dimension, the distances of which were always one day's sailing, except the last, which was two, and he named them Ailu, Udirick, and Bigar. At a distance of a day's voyage to the N.W. he drew another, which he named Ligieb. Having done in the north, he passed to the south, where he marked five other groups, the distances of which likewise were from between one to two days' navigation, and named them Cawen, A-ur, Mediuro, Arno, and Mille. With this knowledge, I now resolved to leave Otdia as soon as possible, to continue my investigation; by our account, Kutusoff and Suwaroff islands lay nearly in the same longitude with Otdia, the latitude only differed by $1\frac{1}{2}°$, and I had no doubt that they were among the clusters pointed out to the north.

On the 3d, I dispatched my lieutenant in a boat to investi-

gate the second passage, and he returned with the account that it was perfectly safe, being 150 fathoms wide in the narrowest parts; in the middle he found no bottom, and near the reefs 11 fathoms depth. On this pleasing information, I ordered the Rurick to be put in readiness for sailing within a few days. This day we had an unpleasant occurrence; Lagediack, who dined with us, brought with him the thief who stole the bucket, but the latter was refused admittance into the cabin, and therefore was obliged to content himself with a seat near the window; Lagediack compassionately handed out to him various eatables, but he liked the shining knives better than eating, and, having asked for one to look at, he hid it in his girdle, when he thought himself unobserved. I was silent till the thief was about leaving us with Lagediack, when on giving a signal, four sailors laid hold of him, took away the knife, and then, having laid him down, gave him a severe chastisement. Lagediack was much frightened, begged for his friend, frequently repeating, *cabuderi emo aidaro* (stealing not good); the latter, however, after the chastisement, went quietly into the boat, and only seemed to regret that he had lost the knife. This event caused much merriment on the island, and in the afternoon I was again visited by Lagediack and Rarick, who brought us cocoa-nuts and baked fish, as a proof that they did not disapprove of my conduct. I now announced to our friends that we should soon leave them, by which they were disagreeably surprised; and Lagediack redoubled his tenderness, by constantly embracing me.

On the 6th, we had several parting-visits; our intimate friends not leaving us the whole day, and I pleased Rarick and Lagediack by giving them some pieces of sail-cloth for their new boats. In the afternoon we received a visit from the old chief of Ormed; we all respected this venerable old man, and he now received several presents; among which was an old coat, with bright buttons, which he immediately put on. For the last time to-day I enjoyed the sight of our garden, where every thing looked prosperously; and, with tears in their eyes, Lagediack and Rarick left us after sun-set.

Observations near the Isle of Otdia.

The mean of our daily observations gave for the latitude of our anchorage	9°	23′	9″ N.
Longitude deducted from the mean of 300 distances between the sun and moon, taken on various days	189	43	45 W.
Variation of the needle	11	38½	0 E.
The mean height of the thermometer	82	Fahrenheit.	

The mean height of the barometer, (which during the whole of our stay had but varied a few lines)---------- 29° 7 inches.

The low land here having no influence on the atmosphere, the barometer rises and falls as regularly as it usually does between the tropics. The mean of our observation near Otdia, gave for the time of high water, in full and new moon, two hours and thirty minutes; the highest difference in the height of the water amounted to seven feet.

This group, consisting of sixty-five islands, I named Rumanzoff.

From Radack to the St. Lawrence Islands.—On the 9th, at day-break, we weighed anchor. The weather was as favorable as the people, who now bade to us their last farewell from shore. I took my course to the passage Schischmareff; we only saw two coral-reefs, to the right, at some distance. We were followed by a canoe from the isle of Ormed. At eight o'clock we reached the passage Schischmareff, which is in every respect preferable to Rurick-strait, as it is much broader, and ships may sail in and out with the usual trade-wind, without being obliged to tack in the channel itself; besides, it is easier to be found, as it lies between two islands, and may be seen from a distance, whilst the other appears like a continued reef. In the middle of the strait, the watch upon the mast-head cried "land!" In S. by W. we descried a few small islands.

I immediately took some altitudes, and obtained for the longitude, by the chronometers, 189° 50′ 00″

The latitude, by the ship's account, deducted from our anchorage, gave---------- 9 42 57 N.

We did not expect to have reached Eregup so soon, and now found that Lagediack's day's voyages were no criterion for us.

At ten o'clock we reached the north point of the cluster Eregup, which only consisted of coral-reefs; then, taking our course westward, we sailed through the channel that separates Eregup and Otdia, in order to get under the wind of the former. In the channel, the current produced a great noise; the waves rose like the surf over a reef; but, on throwing out the plummet, we found no bottom in 100 fathoms. At noon, having doubled the N. point of Eregup, we were in smooth water, and pursued the direction of the group to S.E. on the W. side, within a distance of one mile. By a good observation, we were in lat. 9° 9′ 6″ N., long. by the chronometers, 190° 2′ 47″. We soon obtained a view of the whole cluster, and found it considerably smaller than Otdia; its length being only twenty-four, and its breadth four miles. The whole circle is formed by one reef, containing a few islands, as may be

seen by the accompanying chart of Radack and Ralick. At four o'clock we were near the south point of the cluster, which closes with the largest island, and probably bears the name of Eregup; at least, it was the only one where we saw cocoa-nut trees and people, of whom, however, we saw only three, who when on shore. I sent Lieut. Schischmareff to examine a passage which we saw from hence, but his report was, it might perhaps be navigable, but that it was dangerous from its many windings, and only probably with a westerly wind. I now gave up the further investigation of this cluster, which appeared to be too insignificant to lose much time upon; we finished the survey of it, and at seven o'clock sailed round the south point. We now bent our course towards Cawen, which, according to Lagediack's account, lay in the east. The passage, which he pointed out near the north point of Eregup, we did not find. I named this group, after our late minister of the navy, Tschitschagof.

Feb. 8*th.*—The S.E. part of Eregup lay, at day-break, N.W. of us, and we had to encounter a current from the N.; the wind allowed a northern course, and, at seven o'clock in the evening, we saw in the north the high island of the group Otdia, near which is the passage Lagediack; to the left, we perceived, at a distance of three miles, the group Eregup. A good observation at noon gave us for the latitude 9° 9′ 49″ N., longitude, by the chronometers, 189° 51′ 14″. I found that the current had driven us since last evening, six miles and three-quarters to the south. The whole day and night were spent in tacking.

On the 9th, we lost sight of Otdia. From a number of observations which we took between the sun and moon, we made the longitude 189° 20′ 16″. The current had carried us, since yesterday at noon, nine miles and a half to S.E., 28°, and for that reason we could not yet be on the point from which I hoped, with a S.E. course, to fall in with the group Cawen.

On the 10th, at six o'clock A.M. we were on the desired point, and advanced as rapidly as the wind would allow. At noon, we found the latitude 8° 55′ 52″ N., the longitude, by the chronometers, 189° 20′ 13″ W. The current had driven us, in twenty-four hours, twelve miles and a half to S.W. 85°. We had just laid our instruments aside, when land was descried in the east, at a distance of ten miles. Lagediack had pointed it out correctly; its distance from Otdia was forty-five miles. When we approached the west point of the group, which was richly covered with large palm-trees, we saw in S. and S.E. a chain of islands, extending far under the horizon. This point was the largest island of the group, which, as

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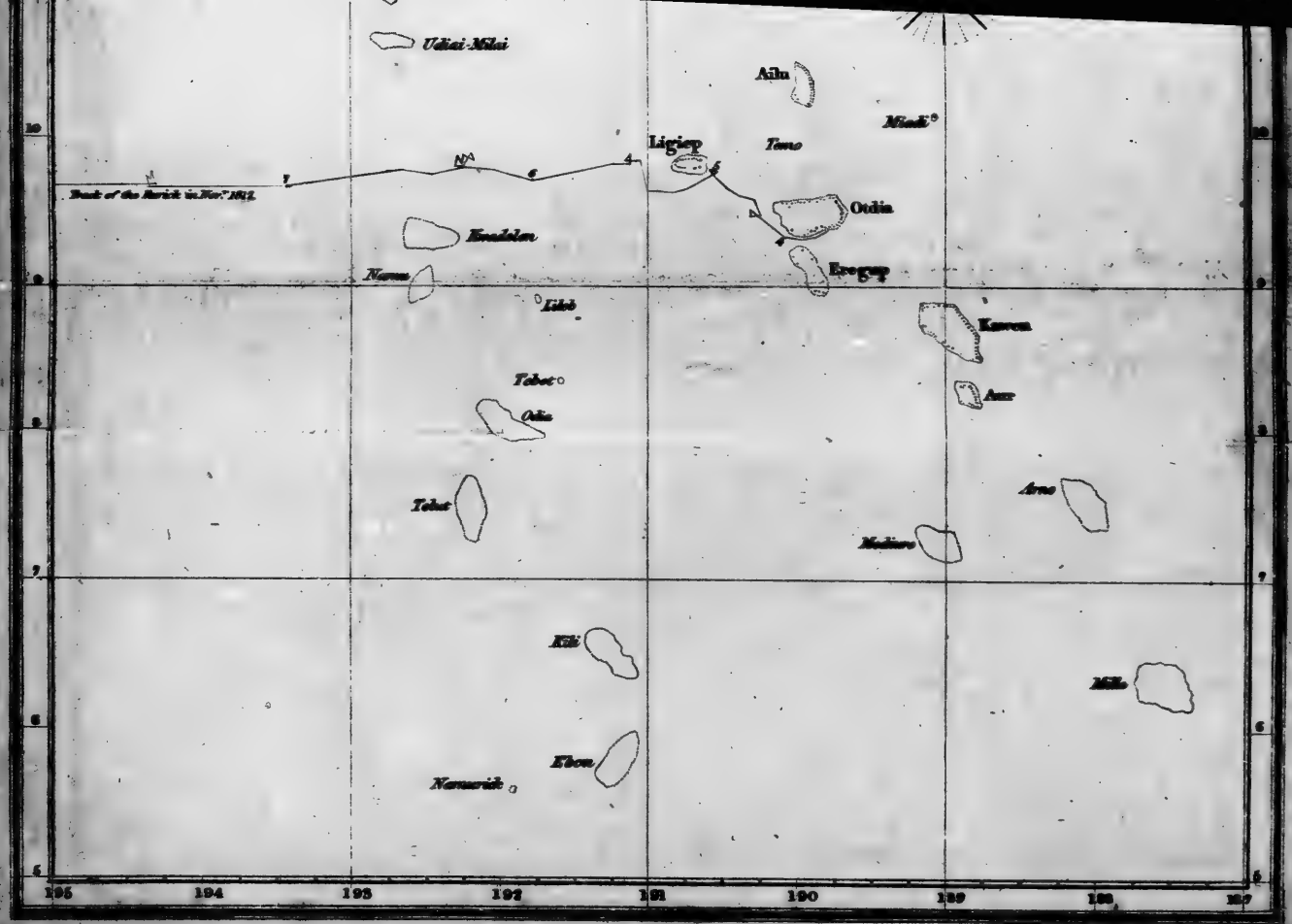
Track of the Brutus in Nov.r 1813.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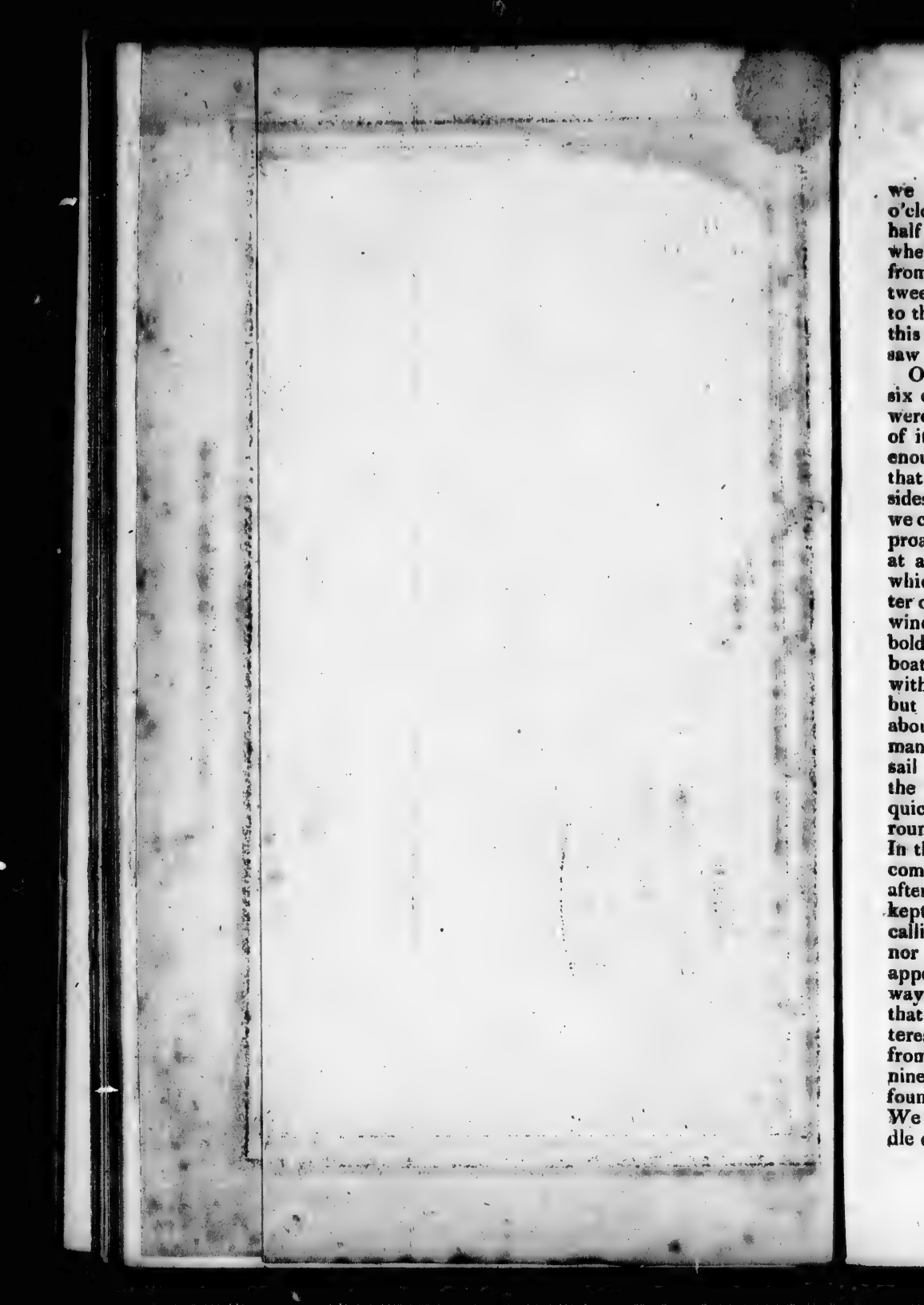


we afterwards learned, bears the name of Cawen. At four o'clock P.M. we pursued the chain, under the wind, within half a mile to the south. We had only advanced nine miles, when the sun set; we therefore tacked about, and returned from whence we had started. We had seen two passages between the reefs, one near the isle of Cawen, and the other more to the south; and I resolved, if possible, to penetrate within this cluster of islands on the next day. On our return, we saw several people on Cawen, looking towards our ship.

On the 11th, at day-break, the wind became violent. At six o'clock we saw the isle of Cawen, and at half-past eight we were in smooth water, out-side the passage, within one fathom of it. We could see from here whether the water was deep enough for us, the sea about the coral-islands being so clear, that we could discern the bottom sailing in eight fathoms; besides, we were so much accustomed to examining depths, that we could conclude upon them by the colour of the water. On approaching the passage, we found it not so wide as it appeared at a distance; two shallows, concealed by the water through which we were obliged to tack, reduced it to less than a quarter of a mile; and, although the undertaking, with so violent a wind as it then blew, was dangerous, we nevertheless resolved boldly to encounter it. While we examined the passage, two boats, each carrying seven islanders, sailed towards us, notwithstanding the high wind from the eastern part of the islands; but they kept at a distance of 200 fathoms from us, tacking about, as we did. While we were admiring their dexterity in managing their boats, and the possibility of carrying so large a sail in such high wind, one of the boats was upset. We saw the crew swimming; some of them, as we thought, women, quickly seated themselves on the keel, the others tied ropes round their waists, and towed the boat on shore, swimming. In the mean time, the other boat, without taking notice of its companion, sailed towards the east, where it landed. Soon after this two larger boats made towards us, from Cawen, but kept under sail, the people in them making various signs, and calling out to us in words which we could not understand, nor hear distinctly for the roaring of the wind. Neither the appearance of boats nor the people's costume differed in any way from that of Otdia, and we could doubt no longer but that they were of the same nation. These people took no interest either in the fate of the others, who were yet half a mile from shore, making the greatest exertions to reach it. It was nine o'clock before we penetrated inside the cluster, where we found room to tack with security, as there were no reefs visible. We found the depth, upon a bottom of live coral, in the middle of the channel, twenty-three fathoms; decreasing on both

sides to five fathoms. We had scarcely reached the basin inside the cluster, where the depth was between twenty and thirty fathoms, when the violence of the wind compelled us to run one reef in the topsails; we nevertheless advanced quickly in tacking, the water being perfectly smooth. At three o'clock P.M. we reached the chain of islands, situated north of the strait, and, half an hour later, we cast anchor two hundred fathoms off a small island, in a depth of twenty-three fathoms, upon fine coral-sand. The Isle of Cawen lay five miles S.W. from us, and the canoes of the natives had left us. On examining the small island, we found it of the same construction as Rumanzoff Islands, and it seemed to be uninhabited; there were only a few small huts, probably used by the natives on occasional fishing excursions. Rats were here also in great numbers.

On the 12th of February, towards noon, two large boats from the eastern part of the group came so near to us that we were enabled to count in them thirteen men and three women. We saluted them with the word *aidara*, which they joyfully returned, at the same time making towards us; and, when we invited them, in their own language, to come to us, they hesitated no longer, and only asked for a rope to be thrown to them. The rope fell into the water, instantly one of the islanders jumped in and fastened his boat to it, swimming. This being done, two of the natives, among whom I recognized the chief, by his ornaments, came upon deck. His head was adorned with white feathers and an enormous wreath of flowers, his neck with various bones wrought with much skill, and his body was wrapped round with fine matting. He was well-made, tall, and muscular, and was somewhat engaging in his whole person. His first enquiry on getting on-board was to know who was the *tamon*, and, being introduced to him, he presented me with cocoa-nuts, placed his flowers on my head, frequently repeating the word *aidara*. He then told me that he was *tamon* of the island *Torua*, situated to the east, whither he invited me. In order to gain his full confidence, I offered him an exchange of names, and instantly it was announced in the boats with loud shouts that their chief's name was now *Totabu*, and mine *Labadeny*. No alliance can be formed here without presents; I therefore gave to my new friend several iron tools, which he committed to the care of his treasurer, after he had for some time delighted himself with looking at them. I omitted to mention an observation which I had before made in Otdia, viz. that every *tamon* has always his treasurer with him, who takes all the presents under his care, and seems, at the same time, to be the first favourite. Labadeny's treasurer, a

jester, was thin, quick in his motions, exceedingly lively, talked much, accompanying every word by vehement gesticulations; in short he was quite the counterpart of his grave master. Our guests, encouraged by the friendly reception which they had met with, walked fearlessly upon the deck, to satisfy their curiosity, which was particularly excited in the treasurer, who inquired after the use of every thing, constantly exclaiming *möll! möll!* at the sight of the quantity of iron about him. Whenever I was not near him to explain any thing, he ran after me, and, seizing hold of me, dragged me to the spot; all his observations he rapidly communicated to his master, and, at every striking object which he saw, he jumped upon the bulwarks and bellowed to his gaping comrades in the boats the wonders on-board, probably making additions, to excite greater astonishment. Before Labadeny left us, I informed him that we should pay for cocoa-nuts with iron. We now were perfectly convinced that these people and those of Otdia are of the same nation; the only difference which we could perceive was, that there was more costliness in the dress and ornaments of the natives of Cawen. Cawen is the largest island of the cluster, being two miles and a quarter in length and three-quarters in breadth. During the night we had a storm. It is a singular circumstance, that the barometer stood higher in this group than at Otdia; its greatest height among those islands having been inch. 30,00, and here it suddenly rose, and this in stormy weather, to 30,80 inch.

On the 13th we could not leave our anchorage, on account of the violence of the wind and the dulness of the weather. However it cleared up in the evening, and we hoped to proceed on our voyage the next day.

We found the latitude of our anchorage ----	8°	54′	21″	N.
Longitude, by the chronometers ----------	189	7	59	W.
Variation of the needle ----------	11	30	0	E.
Longitude of the centre of the island Cawen --	189	11	27	W.

On the 14th we were under sail at six o'clock A.M. Labadeny kept tacking with his boat in company with us towards the east. Passing by the islands, we saw them covered with palm-trees. Many people were walking on the shores; columns of smoke issued from all sides, boats were coming and going, and the whole presented a very animated picture in comparison to the eternal silence that reigned at Otdia. When, in tacking, we came towards the middle of the basin, we had a distinct view of the islands forming the southern part of the cluster; the depth was thirty-two fathoms; the bottom consisted of live coral, and near the islands fine coral sand; there were no reefs there to throw obstacles in the way of navigation, as in Otdia. In the

afternoon we reached a small island, called by the natives *Tjutt*, which was well covered with cocoa-nut trees, and where we saw several huts and people. We approached it within two hundred fathoms, and found a convenient anchorage, protected by a reef to the east, where we dropped anchor, in order to form an acquaintance with the natives. Labadeny came on-board and begged us to sail to the more easterly island, *Torua*, this one, although belonging to him, not being his usual place of abode. I satisfied him by promising I would sail there the next day, and went with him on-shore. The nature of the shore on this island is such that it cannot be reached with a boat; Labadeny carried me there on his back, where several islanders were assembled. Having safely landed me, he set me down, and then made a long speech to his people, of which I only understood that he introduced me as a mighty *tamon*; this being done, he took me by the hand and led me to a capacious cottage, in the interior of the island. Here we were surrounded by all the inhabitants, with several girls adorned with flowers among them. Old and young endeavoured to present us with cocoa-nuts; but the treasurer supported the conversation by himself. He told them a long tale of all the things he had seen on-board the *ellip oa* (large boat), particularly of the large quantities of *möll möll* that was there, and, finally, to complete the astonishment of his auditors, he drew forth the presents that his master had received. The friendly and rational behaviour of the natives made their conversation agreeable, especially as, on account of their greater numbers, they are more courageous than the natives of Otdia. I willingly yielded to their wishes of examining every thing closely, except that of undressing myself, to satisfy their curiosity. We now took a walk through the island, which is about one mile long and a quarter of a mile broad; and, to judge by the number of huts, it contains from fifteen to twenty families, a larger population than the whole of the group Otdia. Cultivation is so little advanced here that they only rear productive trees, such as bread-fruit, pandanus, and cocoa-nut; every proprietor has his small grove, surrounded by a line, tied from tree to tree, probably with the intent that he may not trespass upon the property of others; and this inclosure is sufficient to protect the property of each individual. The island resembles an English park; paths are meandering in all directions through the clusters of trees, in whose shade the huts are scattered, and we passed by none of them without being requested by the housewife to sit down upon clean mats, and to take some refreshment. Here, as well as in Otdia, we looked in vain for any trace of their mode of worship; but there is no doubt that they adore an invisible Being, as it cannot be ima-

gined that so moral a people should be without any religion. They were in possession of two hens, of a small breed, the only fowls on the island; Labadeny offered them to me as a valuable present, but, far from wishing to deprive them of their little treasure, I only regretted that it was not in my power to add to their stock. Mr. Chamisso discovered three kinds of taro, which were carefully cultivated in a damp spot; but the quantity of them was so small that they are probably eaten only as a dainty and not for common food. When I was returning on-board, the natives brought me so many cocoa-nuts that the boat was soon filled, for which presents I distributed iron among them. I was prevented leaving Tjan to-day by the state of the weather, and therefore went on-shore in Labadeny's canoe. The wind blew violently when we left the ship, and I myself experienced how easily these boats may be upset, when they are not kept in trim. One of the natives in hoisting up the sail stepped too far on one side, and we should have been upset, had not the others quickly thrown themselves upon the opposite side. We were well received on shore, and taken to a hut, under which we sat down upon neat matting. Here I found Labadeny's mother, who became so fond of me that she only called me by her son's name, and talked very much, to which I had no objection, as it familiarized me still more with the pronunciation of the language. I saw with pleasure that the natives of this island were as clean in their dress and domestic habits as those of Otdia; but, like them, they have this very disgusting custom—a pretty young woman, who sat opposite to me, pulled her husband's head upon her lap, in order to clean him from vermin, and whenever she caught any she bit it between her teeth and swallowed it; it seemed to me that the women only are entitled to this kind of chase. The natives of the Alioutskan Islands are said to have had the same custom formerly, and some tribes on the N.W. coast of America still follow it. As they were preparing for dinner, I saw for the first time in what manner they light their fires: a soft piece of wood is rubbed with a pointed piece of hard wood till it is scooped out, the dust thus produced serves as tinder, and, when the friction has attained a sufficient heat to kindle, they blow upon it, holding at the same time some dry grass over it. Before the cook began his office, he washed his hands; when his work was done he spread out a clean mat before us, upon which he served excellent boiled fish and baked bread-fruit, placed upon clean leaves. Labadeny tasted first of every dish, then having made a short speech, of which I understood nothing, he invited me to begin. Only he, his old mother, and myself, were allowed to dine at the table; the treasurer and another, whose office I could

not learn, were afterwards permitted to eat the tails of the fish, which we had left. On my returning to the ship I had so many cocoa-nuts given to me by the natives that we had enough to give one to each man of the crew daily for some time. We found here, likewise, some excellent water in tanks. Mr. Chamisso gave some seeds to the natives to-day, and sowed some himself.

We found the latitude of our anchorage ---- 8° 32' 39" N.
Longitude, by the chronometers ----------188 58 29 W.

The high water at new-moon is at 4 o'clock 35 minutes P.M., and rises five feet.

On the 16th we left our anchorage, sailing close along the chain of islands towards the south. At all the islands we saw crowds of people on the shore as we passed. Having sailed seven miles, a large well-manned boat came towards us from one of these islands, which, as we afterwards learned, is called *Olot;* as we were still continuing our course, it followed us; Labadeny's boat was also seen at a distance. We had now a tolerably large island before us, from which the chain took a southerly direction; and, as the cluster seemed to terminate here, I dropped anchor, in order to determine the situation. Through the circuit which the island takes, we rode near it, perfectly covered from the wind, in twelve fathoms. It happened to be Labadeny's residence, *Torua.* The boat that had followed us from Olot came beside us, and the islanders, without hesitation, came on deck when they heard themselves addressed in their own language. The chief of the canoe, a young man of about twenty, after having ascertained that I was the *tamon,* presented me, in a timid and friendly manner, with some fruit, and I soon gained his confidence by a few presents that I made him. I learned that his name was *Langedju,* and that he was chief of the island of Olot; he was more tattooed, and consequently of a higher rank than Labadeny; he wore, also, more ornaments than he did; his countenance was lively and full of expression, and I was pleased with his whole demeanour. The ship and the iron was again admired, and one of the natives even took some of the latter, but he was caught. The chief afterwards ordered, with much warmth, that not the least thing should be taken. I was obliged to exchange my name with Langedju, although I apprehended that I should give offence to Labadeny; who soon arrived, and could not conceal his resentment when he found what had taken place. Langedju was prudent enough not to notice it, and I endeavoured to reconcile my old friend by presents, but he would have no connexion with his rival. I went on-shore with both, and was well received by the natives. Torua is twice as large as Tjan, but not so populous

in proportion, although the island seems to be fertile. Labadeny left me immediately on landing, but Langedju accompanied me, on my walk, with two of his subjects, laughing at Labadeny. I saw several fowls running about wild. After having walked some time, I sat down on the shore with my new friend, in order to obtain further knowledge of this cluster of islands. I drew the cluster in the sand, as it had been drawn by Lagediack; my friend agreed that the names of the islands, as well as their number, were correct, but he drew them rather differently in their situations; besides the cluster, he pointed out two single islands, of which I recognised one, situated east of Ai-lu, as the New-year's Island; the other lay at a distance of a day's voyage in the west; this one he called *Temo*, and the former *Miadi*. His chart, as I afterwards found, was perfectly correct. On my return I saw a party of the natives sitting round a fire, boiling something in cocoa-nut shells. I accepted their invitation to sit down with them, and now saw that they were pulverizing cocoa-nut wood perfectly rotten, which they made into a thick pap, by mixing it with water; this they afterwards baked in small cakes, which, however, I found quite tasteless. I was much better pleased with the tender conduct of the parents towards their children, which I perceived here again in many instances. I remained before this island till the 19th; Langedju scarcely ever left the Rurick, and once brought me some taro-root, which he held in great estimation. We exchanged several cocoa-nuts for iron; the sailor who presided over this business was constantly kissed and caressed by the natives, probably hoping that their tenderness would be converted to some profitable account.

We found the latitude of our anchorage------ 8° 43′ 10″ N.
Longitude, by the chronometers----------188 50 25
Variation of the needle---------- 10 50 0
Our distance from Cawen, in a straight line, was twenty-four miles.

On the 19th we set sail at six o'clock in the morning, following the chain, which only consisted of small islands to the south; after having advanced ten miles it suddenly bent to S.E.; in this direction we discovered an island of a somewhat large size, and now perceived that we were at the S.E. point of the group, stretching from here first to W. then to N.W., by which course it forms a bay. On approaching the large island, which, as we were afterwards informed, bore the name of *Airick*, we discovered other islands beyond the reef in the south, which we soon recognised as the cluster *Aur*. At nine o'clock we cast anchor at sixty fathoms from the island of Airick, in a depth of eight fathoms, and found this anchorage to be the best of all.

Airick is nearly of the same extent as Tarua, but commands a finer prospect than all the islands we had as yet seen. The whole shore was thickly covered with palm-trees, under the shade of which several habitations were scattered; some boats were sailing, others laying at anchor, and it seemed to us as if we were in a much-frequented harbour. Crowds of natives were collecting on the shore looking with astonishment at the large ship. Our scientific gentlemen went on-shore, and met with a friendly reception. Mr. Chamisso soon returned, bringing with him a youth of about eighteen, who had been introduced to him as the *tamon*, and who was followed by his people in several boats, when they saw their young chief approaching us. We received a quantity of cocoa-nuts, for which our old iron was taken in return with perfect satisfaction. The tamon looked at every object with the greatest interest; an old man, who seemed to be his guardian, never left him for a moment, and at last both fell upon the idea of measuring the length and breadth of the ship, and the height of the mast, with a line, which was afterwards preserved. Seeing two gentlemen fencing, he also wanted a rapier, and displayed very great dexterity in his lesson. In the afternoon I went on-shore with the *tamon*, followed by all the canoes; vast numbers of people were collected to see the *tamon* of the ship, but my young friend immediately introduced me to an elderly lady, who, he told me, was his mother, and queen of the island; she sat, surrounded by three ugly old maids of honour, on a mat, before a pretty house; I was invited to sit down by her side, and the people formed a close circle round us. To all my polite observations, however, I received no reply, and, although her majesty was constantly looking at us, her royal lips remained mute. I at last gave up the attempt to make her speak, convinced that high rank imposed silence upon her, particularly as her ladies kept constantly talking. I made the queen a present, which she acknowledged by a kind nod of the head, yet without being touched by her; her ladies took it up, and, after having laid some cocoa-nuts and some rolls of *mogan* at my feet in the greatest silence, the queen withdrew into her house, and the audience was terminated. The young chief now took me to a roomy house, resting upon four pillars, where I found a party of young ladies, tastefully ornamented; one of them, the sister of my companion, sat apart, and I was invited to sit down by her side, while the people again formed a close circle around us. The ceremonial was not so strictly observed by the princess as by her mother; she made use of her privilege of speaking, and was much pleased when I addressed her in her own language; the people, too, were allowed to be cheerful,

and to carry on their jokes. For the purpose of amusing me, the princess ordered the performance of a pantomime, with songs, called by the natives *eb*. Two of her companions sat down by her, the one beating a drum, and the other occasionally joining in the solo-song of the princess, but which rather resembled a wild screaming. The name *Totabu* was frequently mentioned, and I regretted that I did not understand the words. The pantomime would have been tolerable had they not made so many contortions of their necks, and so much rolling of eyes, at the same time foaming at their mouths. On parting, I made some presents to the princess, at which she was so pleased, that she gave me her own shell-necklace in return. Neither the brother or sister had yet been tattooed; probably this operation is not performed so early here, because it is generally done at one operation. Langedju told me, that, after the tattooing, the body was much swelled, and people suffered very great pain, and certainly their suffering must be severe. Capt. Krusenstern's mate, a tall strong man, fainted away from being a little tattooed in the arm. It seems to me that the tattooing, in these islands, is a religious ceremony, at least, several of our gentlemen were refused it in Otdia, being told that it could only be performed in Eregup. In my walk on the island I saw nothing but fruit-trees and taro-fields. Aur is only ten miles distant from the group Cawen.

On the 20th, the Rurick was surrounded for the whole day by boats, filled with guests; in the afternoon the princess appeared in a canoe, and, as she did not venture on-board, I sent her some presents. In the west we descried a large boat, carrying twenty-two men and women, conveying utensils of all sorts, which made us conclude that they were on a long voyage. When it arrived beside our vessel, the chief of the isle of Cawen, a man seven feet high, came upon deck, and presented me with a large roll of *mogan*; he advised us to sail to Aur, where we should find the *tamon ellip* (great chief,) of Cawen. Our guests became emboldened by their large numbers, and nothing but the idea that we were supernatural beings prevented them from seizing upon every thing that pleased them. It was now dark, and the watering-party we had sent on shore had not yet returned, when the mate called out from land that a man was missing. As the natives had always showed themselves unarmed, I had also, to prevent mistrust, sent out my people unarmed, for which I now bitterly reproached myself. I immediately dispatched an armed boat, at the same time firing a gun, and throwing up a rocket, which had the desired effect. The report had scarcely been heard, when a terrible howling was raised on the whole island, which lasted for a quarter of

an hour, and in the mean time our boats returned. The sailor who had been missed, candidly confessed that he had been led astray by a girl, who seduced him to a hut, in the interior of the island, till after sun-set; here several islanders were collected, and confined him; a fire was lit, and he was already stripped, when all of them fell down, as if thunder-struck, at the report of the cannon, and he happily escaped.

On the 21st, the fright still continued, and we had no visitors, till some of our gentlemen went on shore; on being questioned respecting the last night's phenomenon, they told the natives that I was then paying a visit in heaven; and they afterwards behaved very modestly. As I intended to leave Airick the next day, I paid some visits, and was very respectfully received. The old queen I could not see, as I was refused admittance to her, by two sentinels, armed with lances. I was, however, allowed to make as many presents as I pleased to the princess, and some of the chiefs. Labeleoa ordered a parting *Eb:* three men and three women sat down in a semi-circle; two drummers sat before them; with terrible voices they then sung the words, *Totabu, Aidara, Möll!* and every one of their motions was directed to me. I saw herons running about tame, near the huts, and also wild, on the shore; besides these, there are here only strand-snipes, and a species of pigeons. The rats are so bold, that, while the natives are eating, they take away their food.

We found the longitude of our anchorage, from fifty distances taken between the sun and moon	188°	52′	7″	W.
By the chronometers	188	49	25	W.
Latitude, the mean of three observations	8	31	11	N.
Variation of the needle	11	11		E.

The observations for the time of high-water, at new and full moon, gave one hour and fifty-two minutes; the greatest difference in the height of the water amounted to four feet. In the direction N.W. and S.E. the length of Cawen is thirty miles, its breadth only eleven miles and a half. The uniformity of the three clusters, Suwaroff, Cawen, and Otdia, is certainly not accidental, but this formation is peculiar to the corals.

On the 22d, we bent our course to the isle of Olot, near which we cast anchor, at ten o'clock A.M. upon a bottom of fine coral-sand, in a depth of eight fathoms. Labeleoa, who intended to accompany us to Aur, started at the same time with us, but bent his course to the isle of Cawen, when he saw us take the direction of Olot. We had scarcely arrived when we were visited by Langedju, and soon after also by the chief of Torua,

and I succeeded in reconciling the two rivals with each other, and the latter with me. We found Olot less cultivated and populous than the other islands. Langedju took me to his ro-plantation, which, although the largest in these parts, was not yet sufficient to keep an individual for a month. A short distance from the plantation I perceived a banana-tree, carefully hedged round, and was informed that it had but lately been transplanted here, together with the taro from Aur. I trust that all these details may induce some future navigator to observe the progress which in the course of time will undoubtedly be made in these islands. Mr. Chamisso distributed some seeds among the natives, and taught them how to sow them; but for his trouble they stole his knife, which, however, was restored to him, on my seriously insisting upon it. Langedju took us at last to his hut, from which he had previously withdrawn his pretty wives, a degree of mistrust we had not yet met with among these people, and all this time he pretended to be my most intimate friend. We were here treated with an acid dough, made of bread-fruit, which we found difficult to swallow. Our host said that he knew Rarick, Langin, and Lagediack; which made us suppose that the inhabitants of the various clusters of islands have intercourse with each other.

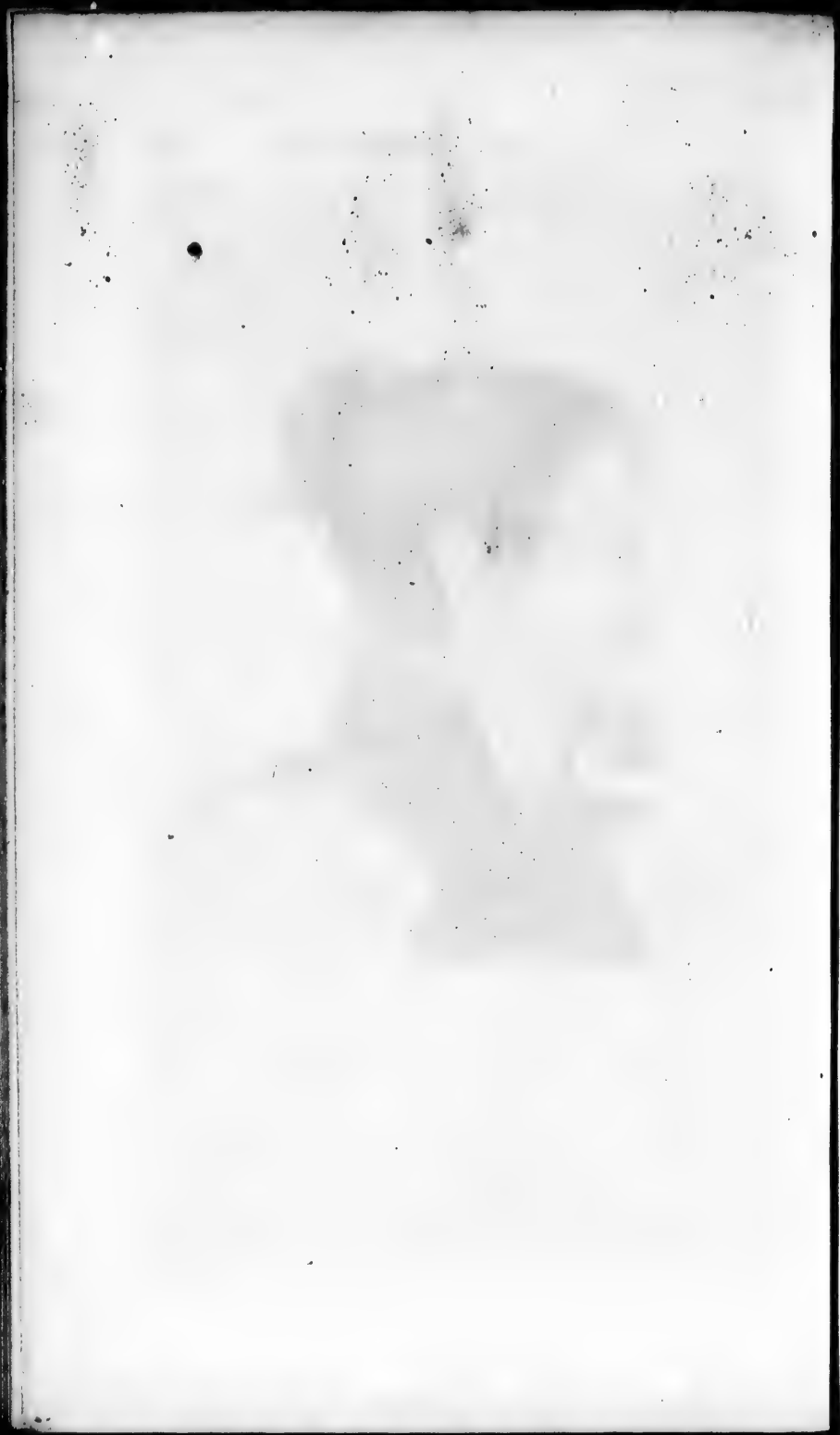
The latitude of Olot we found---------- 8° 46′ 4″ N.
Longitude by the chronometers---------- 188 50 18 W.

The whole cluster of Cawen consists of sixty-four islands.

On the 33d, we left Olot, and took our course towards the passage, through which we had entered. The natives pointed out to me a broad opening between the reefs, west of Airick, which I have marked in my chart. At nine o'clock we passed through the passage near Cawen, and then bent our course S.E. at a little distance from the chain, forming that part of the cluster that lies under the wind. I named the cluster of Cawen, after our meritorious general, Araktschejef. At noon, the observed latitude was 8° 35′ 40″, longitude by the chronometers, 189° 3′ 40″. At the same time, a large island, called by the natives Pigen, which forms the N.W. point of the cluster of Aur, was descried from the mast-head. At two o'clock we were under the wind, east of it, shaping our course in smooth water, within a small distance of the reef, in order to discover a passage. We had scarcely sailed a mile, when we found one of about fifty fathoms wide, but taking a direction which made it difficult to go through. Notwithstanding this, the desire of examining it prevailed: we hoisted all our sails, and happily slipped through it. Some coral-reefs, which we had not noticed earlier, we avoided by manœuvring, and soon obtained a full view of the cluster, which seemed to us the smallest of all in

this region. We approached the island, which forms the S. E. point of the cluster, and is called Aur; and at five o'clock P.M. cast anchor under its protection. In the middle of the basin, we found the depth between twenty-three and twenty-five fathoms, with a bottom of live coral; in our anchorage the depth was eighteen fathoms, although only fifty fathoms from shore. We had scarcely come to anchor, when four large boats started from Aur, and approached us within fifty fathoms, where they stopped; the people looking at us with great attention. When addressed in their own language, however, they lost all fear; some even came upon deck, where their astonishment was like that of all other savages. Our acquaintances at Otdia and Cawen, whom we mentioned to them by name, assisted us in gaining their confidence; and two chiefs, who were much tattooed, and seemed to rank very high, came on-board, only on hearing this account. Upon the whole, we found the natives of Cawen bolder than those of this place. We noticed two savages who were differently tattooed, and spoke a different language; on inquiring whether they were of these islands, they answered us in the negative, relating to us at the same time a long tale, which, however, we could not comprehend. I gave some iron to one of these men, about thirty years of age, of a middling size, and pleasant countenance. He received it gratefully, but not with so much enthusiasm as the other savages. He especially attached himself to me, and when the evening came on, he took me aside and told me, that he wished to stay with me, and never to leave me. I doubted whether he would stay above a day, yet granted his request. He immediately turned to his waiting companions, told them his resolution of staying on-board the vessel, and divided the iron, which we had given to him, among the chiefs. The astonished natives tried in vain to persuade him to alter his resolution; even the eloquence of his friend Edock was lost upon him, he remained immoveable, and, when the latter at last attempted to drag him by force, Kadu repulsed him, and the boats rowed off. I now began to think that he only remained with the intention of robbing us in the night, and then to abscond; I therefore had the watch doubled, and made him lay down beside me, upon deck, where I slept on account of the heat. Kadu felt himself honoured to have his bed made by the side of the *tamon*, but he was somewhat depressed, notwithstanding our endeavours to raise his spirits; he ate what was placed before him, and laid down quietly. The following is the summary of his history, which he communicated to us by degrees. He was born on the island of Ulle, belonging to the Carolines, which must be at least 1500 English miles west of

Cudna



this group, and is only known by name on the chart. He left Ulle with Edock and two other savages, in a sailing-boat, with the intent of fishing, on the coast of a distant island; a violent storm threw them out of their course, and, after eight months' chance-navigation, during which time they scantily supported themselves with fish, which they occasionally caught, they arrived in a wretched condition on the island of Aur. The most remarkable circumstance of their navigation is, that it was accomplished against the N.E. trade-wind, and must be particularly interesting to those who hitherto thought that the population of the South-sea Islands took place from W. to E. By Kadu's account, they had during the whole voyage hoisted their sails as often as the wind would allow, tacking against the N.E. trade-wind, as they always imagined they were under the wind of their own island; which explains how they finally got to Aur.

They calculated their time by making a knot in a line, at every new moon. They suffered more from thirst than from hunger, for, although at every fall of rain they never missed making a small provision of water, they were often entirely without sweet water. Kadu, as the best diver, was frequently sent down to the bottom of the sea, where the water is known to be less brackish, from which he brought up water in a cocoa-nut shell, with only a very small hole in it; although this quenched their thirst for the moment, it probably produced their complete inanition. When they beheld Aur, it afforded them no pleasure, every feeling in them being blunted. Their sails had been destroyed some time, and, giving up to the mercy of the wind and waves, they quietly awaited death, when the inhabitants of Aur came to their assistance, and brought them on shore, in a dying state. Their preservers, however, tempted by the iron and other utensils which they had with them, were about to sacrifice them to their avarice, when Tigedien, the tamon of Aur, came up just in time to save their lives. When Kadu, afterwards, offered all his property to his preserver, the latter had the generosity to refuse it: he only took a trifle, at the same time threatening his people with the punishment of death, if any one should attempt to do any injury to the strangers. Kadu with his companions went to live with Tigedien, who treated him with paternal fondness. By his calculation they must have been here between three and four years. Kadu was in the wood, when the *Rurick* arrived, and was quickly sent for, (being generally considered as a sensible and experienced man,) in order that he might explain this singular appearance. He had often told the natives, of ships that had been in Ulle, during his

absence, of which, however, *he* had been told, and he even mentioned the names of two persons, Lewis and Marmol, who came from the large island of Britain; and thus he also knew our ship. Having a great predilection for white people, he persuaded the natives to go on-board, which they at first refused, there being a tradition among them, that white people eat the blacks. How they had imbibed this opinion we could not discover, since, besides an old tradition, that, from time immemorial, a large ship had sailed by Cawen, they had no other idea of European ships except what Kadu had communicated to them. His promise to purchase iron for them, at last induced them to go on-board, where Kadu had stayed. The precautions which we had used with him during the night were unnecessary; he slept peaceably, and rose, at day-break, happy and well-pleased.

On the 24th, we sailed to the island of Stabual, which is eight miles from Aur, and forms the N.E. point, as we found the coral-bottom on our present anchorage dangerous for our cables. We found the eastern part of the chain comparatively populous; met with no shallows; and at ten o'clock reached Stabual, where we cast anchor in a depth of eight fathoms, upon fine coral-sand. To judge by the number of huts and boats, this island is well inhabited; the cluster of Cawen was visible from the mast-head. Five boats, which had followed us from Aur, carrying among the rest three *tamons*, Tiuraur, Lebeuliet, and Tigedien, now came beside us. Kadu, dressed in a yellow cloak and red apron, strutted about the vessel without taking any notice of his companions, who stared at him from their boats, and could not understand how the change had taken place in him. They called him by his name, in vain; he would not grant them a look, yet he always knew how to turn in a manner to show his dress to the best advantage. I told him to invite the three *tamons* to come on-board, for I could not venture to admit all their companions, on account of their number; he felt himself highly honoured, and with great dignity, he led Tigedien upon deck, whom he introduced as the first chief. This old man, had a snow-white beard and hair, and a venerable countenance; but his tall, robust body, was bent with age. He presented me with some rolls of *mogan*, and, while I conversed with him, Kadu also introduced the other chiefs, who were likewise very old men. The dress of the *tamons* differed very little from that of the others; they were only more tattooed, and wore ornaments of fish-bone round their necks, which are considered as orders among them. Kadu led our guests about the deck, and explained every object, with a confidence which made it appear as if he knew

them himself perfectly well; he was very loquacious about trifles, and usually made them laugh. When they saw a sailor taking a pinch of snuff, they asked him for an explanation; he was not in the least embarrassed, although he had never seen it before himself; he took the box, and told them so much about it, as made them listen with great attention; but when, in order to make the point perfectly clear, he applied the snuff near his nose, he threw the box afar off, and began sneezing and screaming in a manner, which frightened his auditors. However, he soon recovered himself, and dexterously turned the adventure into a joke. His explanations of the guns showed that he was acquainted with them; for he told them that, if the islanders endeavoured to steal any thing, all their fruit-trees would be battered down by them, telling them that Lewis and Marmol, when the natives of Ulle had stolen something from their ship, did not leave off shooting down their trees, till the booty was restored. The *tamons* now again endeavoured to make him renounce his resolution of staying with us; but he only shook his head, embraced me, and said: "I will stay with thee, wherever thou goest!" We were informed that there was another *tamon* here, named Lamary, who held all the islands from Aur to Bigar, under his dominion, but who was now gone on a voyage to collect an army, with which he intended to attack Mediuro, a cluster of islands south of Aur. The inhabitants of that group frequently attack the other islands, for the purpose of plundering them of their provisions, which they are in want of, on account of their redundant population. Lamary now meditated punishing them for an attack upon his islands, in which one of his men had been killed. The greatest ravages, by Kadu's account, were committed in Otdia, where every thing which could not be carried away were destroyed. This at once explained why all the trees we had seen there, had been newly planted. The people did not seem to us adapted for war, in which opinion we were confirmed, by their short wretched lances. We were told, that even their women go to war, carrying baskets with stones, which, as they form the rear-guard, they throw over the heads of their combatants, into the enemy's ranks; they also assist the wounded, and Kadu, who had been with these people in several wars, assured us that the women were found of great utility. Tigedien was appointed regent in Lamary's absence, and was treated by the people with marked respect. Lebeuliet, the second in rank after him, is the owner of the cluster of Cawen, but in time of peace he lives in Airick, with the young *tamon* and the amiable princess, his children. Tiuraur, the youngest of them, possesses

the cluster of Otdia, and is Rarick's father. The *tamons* went on shore, whither they invited me to follow them. As Kadu wished to accompany them, I permitted it, having no doubt that, fickle as all other South-sea islanders, he would never return; they carried him off in triumph. All the boats followed that of Tigedien, in which, elevated through our favour, he now occupied the *tamon's* seat. I went on shore in the afternoon, where I took a walk, accompanied by the stoutest of the *tamons*, Tiuraur. The isle of Stobual is one mile and a half long, and a quarter broad; some considerable hills are formed here of most beautiful mould; the palm and bread-fruit trees grow exceedingly large, and I even found a new plantation of banana-trees. We also saw more taro here than in any other part of the islands, and we had some brought to us daily; the roots are smaller than those in the Sandwich Islands, which is probably owing to the want of moisture, although the natives assured us that they would thrive very well, if they were not so often destroyed by the people of Mediuro. In Lebeuliet's residence I found a considerable number of men and women, surrounding Kadu, to whom they were attracted by his new dress. But I was much astonished, when I found him making a speech, at which his auditors were melting into tears; an old woman sobbed aloud, Tigedien's eyes were streaming, and he himself could scarcely conceal his own emotion: he often named Aur, Ulle, and Totabu; I was not sufficiently master of the language to understand his speech, yet I guessed by it that he was taking leave of the natives. As far as I could understand, he first spoke of the sufferings he had endured on his voyage from Ulle to Aur; he then described the kind reception he had met with from Tigedien, and concluded by saying, that he hoped to see his native-country again by going with me. When Tigedien began to speak, Kadu shed a profusion of tears; the people were moved, and a hearty embrace of Tigedien and Kadu concluded this affecting scene. Kadu followed us on-board, and, as his determination of remaining with us seemed to be immoveably fixed, he was received into the cabin, in the officer's company, which flattered him very much, as he well perceived the distinction between us and the sailors, and thought that he was now one of the *tamons* of the ship. He boarded with us, and learned very easily the use of knives and forks, and, upon the whole, behaved as genteelly and modestly as if he had always frequented respectable company. He soon formed an affection for all our gentlemen, and they, in return, esteemed him for his good qualities.

On the 26th, we were during the whole day surrounded by natives, who, knowing that it was our intention to leave the

next day, came in their canoes to exchange cocoa-nuts for iron. In the afternoon the *tamons* brought us considerable presents of mogan and cocoa-nuts. When I was alone with our guests in the cabin, they looked carefully about them, to ascertain whether any one was listening, and then begged me mysteriously, but urgently, to stop here till their army was assembled; then to assist them in killing all the inhabitants of Mediuro, and afterwards to return to Aur, loaded with cocoa-nuts and bread-fruit; for this service they would give me an *eb* every day. I was sorry that the advance of the season did not allow me to assist these poor islanders against their enemies; perhaps to protect them for ever against their attacks, by my mere appearance. To compensate for our refusal, I gave them some of my lances and short arms, which made them exceedingly happy. Every thing was shown to the people in the boats, who broke out in a unanimous "Oh!" Tiuraur danced, and sung a warlike song, showing us at the same time how he would now dash down his enemies; the people roared with joy, and, if the enemy had then appeared, they would have certainly proved victorious. The *tamons* now left us; Edock, Cadu's friend, only stayed, to make a last attempt to deter him from going with us, but all was in vain; what he had received from us, he gave to his friend, and wept bitterly, when at last he tore himself away from him. Edock was better versed in the geography of the Carolines, which he had visited; and, from the accounts which I received from him, I drew a chart, which accompanies this work. However imperfect it may be, it perhaps may be of use to some future navigator, since I had already discovered three clusters of islands through Lagediack's information. The distances between the cluster of islands, which, by Edock's account, are of the same construction as those just examined by us, I have marked with numbers, pointing out the days' voyages from one cluster to another; the single islands are only marked by a ring. Jethin, Feis, Pelli, and Jap, are said to consist of high land, and all the others of low land. Jap and Pelli, probably Wilson's Pelloes Islands, are marked on every chart. On inquiring of Edock about the situation of Ulle, he pointed to the east; an error, which proves that these men were driven from their island by an easterly wind, and were forced further by a S.W. monsoon, which reigns about there; but, still imagining that they were west of Ulle, they continued tacking towards the east, when they had reached the trade-wind. Edock told me that another boat, with five men, had landed on the cluster of Arno, a day's voyage S.W. from here. They were natives of the group Lamureck, at a small distance from Ulle. When, a short time since, the natives of

Arno ventured an attack upon these islands, Kadu and Edock recognized the natives of Lamureck, with whom they had formerly been acquainted, and, instead of fighting, they looked out for a solitary spot, where they related their misfortunes to each other. The names of the five Lamureckans are, Guidal, Pigedu, Uderick, Katulgi, and Udeben; one of the clusters of Radack is named Uderick, and, from the similarity of names, we might conclude that boats from the Carolines are frequently stranded here. I went on shore in the afternoon, where I was well received by the natives. A flotilla was fitting out, probably against Mediuro; two boats, the largest which I saw here, were thirty-eight feet long. Mr. Chamisso spent this night in the *tamon's* house, where he had been promised to be tattooed; he, however, waited in vain.

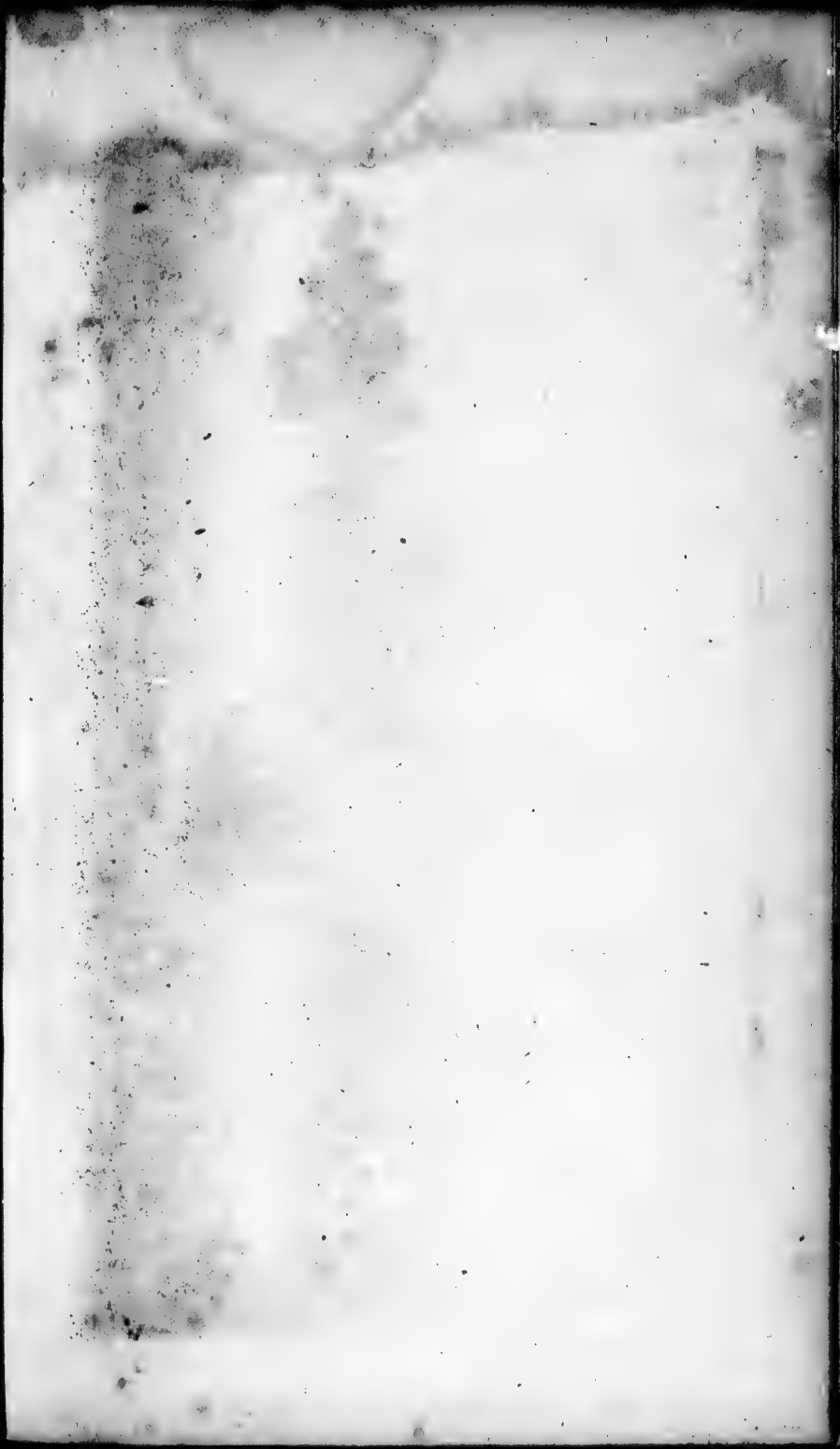
Notwithstanding the high wind, two large boats arrived from Airick, of the cluster Cawen, a proof that they can weather a tolerably high sea. At sun-set the natives accompanied us to our boats, which they had filled with cocoa-nuts, so that we scarcely had any room to sit down. I made them various presents, and we parted in the best terms.

The latitude of our anchorage we found, from the mean of three observations,	8°	18′	42″	
Observed longitude	168	48		E.
Longitude, by the chronometers,	188	51	46	
Variation of the needle	11	58	30	E.

The cluster of Aur, in its greatest length from N.W. to S.E. is thirteen miles, and its breadth six miles; in the whole we counted thirty-two islands. I named the group after our president of the navy, *Traversey*. As my time did not permit me to visit the clusters, Arno, Mediuro, and Mille, I could only place them on my chart according to the directions given to me by the natives; the distances are calculated by the day's voyages. The population of the cluster Aur, which we calculated to be between 3 and 400, is small, when compared to its extent, yet extensive in comparison to that of the other clusters.

On the 27th, we sailed from Aur at day-break; during the whole night we heard the drums, and the singing of the natives, which noise was doubled when we hoisted the sails, and Kadu was of opinion that it was done to wish us a prosperous voyage. At seven o'clock we again sailed through the passage by which we had entered. At noon, we saw Cawen four miles from us in the east; we then doubled the cluster Otdia over the wind, and tacked through the night with little sail.

On the 28th, we had fine weather, and by our ship's account ought to have been within sight of Otdia, but, as no land could



View of the Island Birick, belonging to the Great Queen in Radack.

be seen even from the mast-head, we found that we had been deceived in our account by the current, which had taken us during the night sixteen miles to the N.W. 11°. In order to obtain sight of Otdia, after which I wished to determine my position on the chart, I steered straight to west; and, after a few hours' sailing, we recognized the Isle of Ormed, at a distance of seven miles in the south. From here I steered N.W. in the hope of falling in with the cluster Ailu. By a good observation, taken at noon, we found our latitude 9° 51′ 29″, the longitude by the chronometers 189° 56′ 00″. On calculating it by the Isle of Ormed, we only found one minute difference, an agreement which not only proved the correctness of the chronometers, but also the exactness of our determination of Aur, and which gave me more pleasure than a new discovery. Kadu, to whom we had given a shirt and a light sailor's jacket, was in excellent humour, till the motion of the ship made him seasick and melancholy, but with the recovery of his health he also regained his spirits, and did not seem to miss his friends. At three o'clock three low islands were seen in the north, which Cadu recognized as belonging to Ailu; in his opinion the small island of Temo lay S.W. and Ligiep farther west. We tacked during the night.

On the 1st of March, at day-break, we found ourselves under the wind of the Isle of Ailu, which gives the name to the cluster, and forms the south point of it. The whole length of the island was scarcely a mile, and its breadth a quarter of a mile; high palm-trees distinguished it from the rest. On doubling it, we saw columns of smoke rising, and people walking in different parts; we now pursued the south side of the group, consisting only of coral-reefs, and, when we had doubled this, we were in smooth water. We now continued our course northward, near the reef, in the hope of finding an opening. We soon saw three boats coming through the reefs, but found the passage too narrow to pass. Two boats came so near that Kadu could enter into conversation with them; they would not come on-board, but they pointed out a passage to the north, which they thought broad enough to let our ship go through. We soon found three passages, two of which were deep enough, but only four fathoms wide; the third was from fifty to sixty fathoms wide, but it was too late to examine it this evening. We now had had a view of the whole cluster, which was fifteen miles long and five broad; the east side of it was formed by a chain of islands, and the west side consisted of a coral-reef.

March 2d.—During the night the current had driven us eight miles to the west, nevertheless we reached the passage at eight o'clock. The wind blew from it, and we waited for the setting-

View of the Island Bruak, belonging to the Group Cowan in Radack.

in of the current. Lieutenant Schischmareff found the passage only fifty fathoms wide, but perfectly without danger, as the reefs on both sides rose perpendicularly from the bottom. I hoisted all our sails, so that, if in the passage there should be a necessity of turning the vessel against the wind, she might keep on her rapidity till she should be out of all danger; the attempt, however, would not have succeeded without the current. We caught a fish of the species of the mackarel, by a hook dragging behind the ship. The wind would have permitted us to have taken a straight course to the Isle of Ailu, had there not been so many coral-reefs in our way, which we had to avoid. We had not as yet met with so many shallows in any of the clusters, nevertheless we came to a convenient anchorage near this island at noon. Here we were approached by three boats, and Kadu placed himself upon deck in a manner that he might be seen from head to foot, in his new dress. He called out to the people, condescendingly, that he was Kadu, that they need not be afraid, and might come on-board; they at last came, and after he had given them time to examine his dress, he also explained to them the other objects, and thought it quite natural that they should behave as submissively to him as if he were a great *tamon*. Afterwards he had even the condescension to go with them on-shore, taking, without ceremony, the place of honour in one of the canoes; and the good savages, without thinking that but a few days ago he had been a commoner like themselves, carried him through the water on their shoulders, singing and shouting at the same time; an obsequiousness which he probably increased by the gift of a few old nails which he had taken with him. When he had reached the shore he sat down gravely; they all surrounded him standing, and he told them of his great experience and adventures. We went on-shore in the afternoon, where we observed that this cluster must have risen later than the others; it had but little mould, and was therefore comparatively unproductive in fruit; the bread-fruit tree we entirely missed; the pandanus-tree, which abounds in the other islands, is carefully cultivated; fowls, which are kept tied with strings to the houses, as house-dogs with us, are more frequent, but their flesh is not eaten; the natives only using their feathers for ornament. The long feathers of the tropic bird, which are but rarely found, are here considered as the most precious ornaments. We were told that Lamary had lately sailed from hence to Udirick, for the purpose of collecting some forces there; also that Langemui, who had stayed as the chief of this cluster, was on the Isle of Capeniur, on the northern point. Udirick, the natives said, lay a day's voyage from here, straight to the north, and I had no doubt that

they were the Kutusoff and Suwaroff Islands, which we discovered last year. Kadu returned with us on-board; the natives also accompanied us in their canoes, filled with cocoa-nuts, which they offered us, without asking any thing in return. Considering the little fruit they had, I was touched by their generosity, and made them several presents of iron. By a good observation, we found the latitude of our anchorage 10° 13′ 7″, longitude by the chronometers 188° 58′ 33″.

On the 4th of March we set sail at day-break for Capenuir, which, owing to the many coral-reefs we found in our way, we only reached at nine o'clock in the evening. We anchored within fifty fathoms of the island, where we lay protected against the wind; and I resolved to remain a few days in order to put our ship in a state fit to encounter the stormy ocean, which we were soon to enter. The greatest depth in the whole cluster was twenty fathoms, and where we lay it was only six fathoms; the bottom was formed of white clay, which we had not met with in any of the clusters. We were visited by Langemui, who came to lay some cocoa-nuts at my feet. He was a man of about eighty, thin, and his hair grey, but he possessed all the vivacity of youth. I paid him my visit in the afternoon, and met with a very friendly reception by his family, who put several questions to Kadu respecting the ship. I perceived several scars in Langemui's arm, and asked him on what occasion he had received them. He pointed to the west, and telling me that a long time since he visited the natives of Ralick, where he had received the wounds, he became so infuriated, that he took up a lance and threw it against a tree at a distance of fifteen paces, with such force that it remained fixed in it, at the same time exclaiming, *Mani mamuan Ralick!* (kill the people of Ralick). I now saw that these lances, of which I had entertained so bad an opinion, were mortal even at twenty paces. I afterwards inquired of him, by means of Kadu, who was already accustomed to my pronunciation, what he meant by Ralick, and I was informed that the chain of islands, already known to us, from Bigar, in the north, to Mille, in the south, is called by the natives Radack, as I also shall name it in future. West of the chain of Radack, another runs parallel with it, consisting of nine large clusters and three single islands, which is very populous, and bears the name of Ralick. The old chief explained himself by denoting the chains on an extended carpet with stones. As his account of the clusters of Radack (as far as we knew them) was correct, his account of Ralick also deserves confidence. After he had repeated the names of the clusters several times, he shewed us the route to them in the following ingenious way: a stone in his

hand represented the boat; with this he sailed at sun-rise from Ailu, taking a S.W. course, and reached the Isle of Temo at noon; and afterwards, without stopping, the cluster of Legiep. From Legiep he started in the morning, taking a western course, and, after having sailed two days and two nights, he arrived on the cluster of Gwadelen, belonging to Ralick. At the time he received his wounds, the two chains of islands were carrying on a violent war against each other, but they are now in a friendly league. Kadu told us that it was the *tamon Tiuraur* who went to Ralick, where he exchanged names with the chief, and concluded the peace between the two chains. The chain of Ralick has two rulers,—Lagudack-nanait and Labondugin; the former is called *erud ellip* (great chief). The word *tamon*, by which the chiefs in the Carolines are named, had only been introduced here by Kadu; the name they give them being *erud*. The natives of both chains were said to be the same in language and habits, and the cluster of Otdia was reported to be the largest and most populous in the chain of Ralick. Langemui told me that it might be reached in a day and a half; thus the distance would be sixty miles, as the day's voyage among the savages is seldom above forty miles; from Ralick to Radack they go slower, as they have then to tack against the trade-wind. Langemui also told me, that a long time ago, a ship with white people was at Otdia, from which the natives purchased iron, and that on the northern cluster, Bigini, likewise belonging to this group, a large ship had been seen sailing by. From this may be inferred that the chain of Radack, with the exception of a few clusters, is perfectly unknown, and that Ralick may be considered as the Mulgrave's Islands, with which we are as little acquainted. The chart of the chain of Ralick, which will be found in my atlas, I sketched from Langemui's account. The isle of Capeniur, only a quarter of a mile in circumference, is but little advanced in vegetation, and its population seemed but thin; perhaps, however, most of them had followed Lamary to Udirick. I had our linen washed here in one of the cisterns, and the natives kindly assisted the sailors, who were daily sent on land for this purpose; Kadu insisted upon washing his own linen himself. I visited on this island a chief, who, by his appearance, seemed to be far above a hundred years old; snow-white woolly hair covered his head and chin, his thin wrinkled body had scarcely a human appearance, yet he also enjoyed the privilege of these islanders, his mind being cheerful and unimpared. I found it very extraordinary that, with such excellent health, the population should be so small, till Kadu gave me an explanation; on account of the scarcity of provisions, they have in practice an

inhuman law, that a mother is not to bring up more than three children, and that all the others must be killed. The salubrity of the climate we experienced ourselves, since, notwithstanding our want of fresh provisions, our state of health had never been better. Up to the 6th of March we enjoyed here the finest weather, by a moderate E.N.E. wind; during the night we had the unusual occurrence of a calm, and on the 7th the N.E. trade-wind shifted, for the first time during our stay in Radack, to N.W. and W. At the same time it rained violently till sunset; on the following morning the wind again blew from N.E., and the sun shone bright. Except the daily oscillations, we had observed no variation in the barometer, but, during the westerly wind, it fell four lines.

On the 9th and 10th we could do no work on the ship, on account of the violence of the rain, and therefore made every exertion to complete the repairs on the 11th, while the weather was fine. According to observation, which was confirmed by Kadu, the N.E. by N. wind is the most prevalent in Radack, yet, in the months of September and October, he said the wind blew sometimes from S.W., often changing to a hurricane, which tears up cocoa-nut and bread-fruit trees, lays waste islands on the western part of the group, which sometimes are swallowed up by the waves. The natives look to this season with awe, as it often destroys their bread-fruit harvest, which takes place during this time, and only once in the year; for, although fruit may be seen on these trees during the whole year, they are the fullest in these dangerous months. Langemui brought to us to-day a young chief of the Isle of *Miadi*, which in his opinion now lay east of us, and no doubt was our New-year's Island, which, by our calculation, lay fifty-six miles east of us. This young man had been overtaken by the storm in a small fishing-boat, only capable of carrying one person, and, after a few days, he was thrown on this cluster. He was tattooed all over his body, very respectful in his behaviour, and exceedingly inquisitive. He intended to wait here for Lamary's return, who was also to go to Miadi to gather troops on that island, whither he thought of accompanying him. It is astonishing how these savages can steer against the N.E. trade-wind for a point like Miadi, which is fifty-six miles off, and which they can scarcely see at that distance. As they only tack, they are two days and one night on their voyage, without any other means of calculating their route than the stars, (which they only see with their naked eyes,) a skill which Europeans do not possess. Langemui felt very sorry when he heard that we were to leave him on the next day, and immediately dispatched some people to gather cocoa-nuts, and

others to fish; during the whole night we saw people with fires on the reefs, by which means they draw the fish, and then spear them.

On the 13th, at day-break, our old friend brought us his present of cocoa-nuts and fish, and soon after we weighed anchor. The old man stood a long time in his boat, bidding farewell to us with both his hands. I named the cluster of Ailu *Krusenstern.* At seven o'clock we came to a passage more to the north, through which I sailed, although it was only thirty fathoms wide, as the wind favoured us. From hence I took my course N. by W. towards the cluster of Udirick.

The mean of several observations for the latitude of our last anchorage was	10°	17′	25″	N.
The mean of many observations between the sun and moon was	190	00	40	W.
Variation of the needle	11	15½		E.

The mean of our observations gave for the time of high water in full and new moon 4 h. 53 m., the greatest difference in the height of the water amounted to eight feet.

At three o'clock in the afternoon Udirick was seen to the north, and we soon distinguished the two clusters of Kutusoff and Suwaroff, as well as the channel which parts them, and through which we sailed last year. As it began to get dark we tacked with but few sails.

On the 13th we observed at day-break that the current had carried us during the night eight miles to S.W. 4°, and we now took our course to the strait which is formed by Udirick in the north, and Togai in the south. At eight o'clock we passed it, and were under the wind of the Suwaroff islands: as I found no passage broad and deep enough to penetrate among them, I resolved to keep here a day under sail, in order to speak to Lamary. Four canoes soon made their appearance, in one of which was the chief; they were just beginning to repeat the ceremony of last year, when, to their astonishment, they recognized Kadu among us. Lamary staid only a short time with us on-board, his people being afraid that we might carry him away with us. He was less distinguished from the other islanders by his dress than in his tall robust figure; his countenance betrayed sense, and the left eye being a little smaller than the right gave him a knowing look. Kadu told me afterwards that Lamary, now about thirty years old, was born in Arno, from whence, a few years ago, he came to Aur, killed the chief without ceremony, and assumed the dominion; from thence he went with his adherents to Cawen, and so on to the north as far as Udirick; he killed the first chiefs every where, and now reigned over the whole chain from Radack to Aur. It is wor-

thy of notice that, in ancient times, the Isle of Sumatra was known to the Arabs by the name of Lamary; I should have supposed that the population of the Carolines, as well as of these groups, had its origin in the Philippine islands, particularly as these nations resemble each other. After I had made some presents to Lamary, he took an artificially-wrought fish-bone, which is worn here as a mark of distinction, from his neck, and immediately left the ship; the other islanders, however, stayed to listen to Kadu's narrative. I was informed by them that the northernmost cluster of Ralick, Bigini, lay due east from here; this is, perhaps, the same which is known on the chart under the name of Pescadores, and has only been seen once; they pointed to the Isle of Bigar in N.N.E., and told me that Lamary would soon go there to catch turtle, the flesh of which was to be preserved against the intended war. We were visited by two of Kadu's companions in misfortune, who had come hither with Lamary; one of them, an old man, to whom Kadu was very much attached, he had made up his mind to take with us, without telling me a word on the subject. The old man became quite furious, when I refused it. He spoke ill of Kadu, and begged me vehemently to take him with me instead of the other. I should willingly have acceded to his wish, had not I been almost certain that the difficulties of a long voyage would have caused his death. Kadu begged to accompany the natives on-shore, and Mr. Chamisso also went with them, in order to examine the islands more closely. The old Caroline islander could only be removed by force. After a few hours the naturalist and Kadu returned, accompanied by some boats laden with cocoa-nuts. They were not able to land, the passage being too narrow, a contrary wind blowing from inside the basin, and outside the surf being impassable; Kadu, however, swam through it with the other natives, whilst Mr. Chamisso waited for their return in the boat. I again represented to Kadu that the last moment had now arrived, when he might yet change his intention; that we should never return to Radack, that he had no prospect of returning to Ulle, and that he had to expect a long and troublesome voyage; but he embraced me with both his hands, promised to stay with me till death; and I therefore had no alternative but to keep him. He now quickly distributed his treasures, and we left Udirick.

On the 14th, after having endeavoured through the night to gain the wind towards the east, we found, by a good observation at noon, which gave for the latitude 11° 50′ 57″, and the longitude, by the chronometers, 190° 26′ 32″, that since yesterday the current had carried us twenty-six miles due west; so that we had not gained any thing towards the east, but actually

had lost. The same current, which seems to be peculiar to this place, and for which I could discover no cause, I also perceived last year, and it now prevented me from reaching Bigar. The weather was fine, and the wind blew moderately from E.N.E. We saw several species of maritime birds, which indicated the proximity of an uninhabited island.

On the 15th we again made an unsuccessful attempt to reach Bigar; the current drove us a second time twenty miles west, and, seeing the impossibility of reaching this cluster, I took my course for Unalaska. As the islands discovered by the frigate *Cornwallis* lay in my route, I resolved to take a view of them. Kadu told me that Bigar also forms a circle, which is almost entirely formed of reefs, there being but two small islands, with a third in the middle of the basin, all of them scantily covered with mould, and over-grown with low bushes; there are some small straits under the wind of the island, for boats, which go there for the purpose of catching turtle and birds. Perhaps, if I could have reached them, I might have obtained some information respecting the religion of the people of Radack, since they say that the island is inhabited by a blind god, with his two sons; but, as the former has taken the turtle and birds under his particular protection, the savages have invented the stratagem of assuming the sons' names as long as they are on the island; by which the old man is happily deceived, and throws no obstacle in their way. In the mean time they endeavour to entice the sons by flattering songs, even while they are on their voyage; their first request is that they may suffer no want of rain-water as long as they are there. They also believe that the sharks near Bigar eat no human beings.

March the 18th.—The current took us daily from ten to twelve miles west, and I was obliged to steer a complete northern course, as I did not wish to miss the Cornwallis Islands. At noon, by our observation, we found the longitude 198° 38′ 45″, the latitude 13° 45′ 11″. The islands could therefore not be far off, as was likewise indicated by numbers of sea-birds, which, after having fluttered round us the whole of the day, in the evening all flew in one direction, and Kadu, who did not suspect any land here, suddenly exclaimed, pointing at the birds, "There must be land! the birds fly to their young ones, and by that we find an island when we have lost it." From this it may be seen that La Perouse was wrong in maintaining the contrary, as even the savages have made the observation, and, in the evening, they take the birds for their guides.

On the 19th, at seven o'clock A. M., we saw land to the north, straight before us; according to Arrowsmith's Chart it

must have been much more eastward. At eight o'clock we distinctly descried several islands, covered with low shrubs, only visible within five or six miles, and which might therefore prove more dangerous to ships than the clusters we had just left, as they are at least covered with high trees, and give a timely warning. At noon we had doubled the south point of the small cluster and were under the wind of it, in smooth water, where we had a full view of the whole. A coral reef here forms, also, a circle, the eastern side of which only consists of islands. Neither the size nor the geographical situation of this cluster in Arrowsmith's Chart tallied with our observation. The frigate Cornwallis states the extent of the cluster from north to south to be thirty miles, whilst we, on the other hand, only found it thirteen miles and a half; we also differ in our longitudes. By our observation the cluster lies in 191° 00′ 25″, consequently twenty minutes farther west than it is fixed by the English frigate; the latitudes agree tolerably well. At noon, being near the south point of the cluster, we found the latitude 14° 39′ 29″. We approached the reef under the wind till within two hundred fathoms, but our boat could find no opening to penetrate inside the basin; but, to judge by the bright colour of the water in it, the depth of the basin was very shallow, and probably the cluster will soon form one island. An enormous shark here swallowed an iron hook as thick as a finger, but he was so large and heavy that it broke in the middle when we endeavoured to pull him up. On leaving the islands, we steered, as far as the wind would allow, north, in order to reach, in latitude 30°, the same spot where the year before we had seen indications of land.

On the 21st, at noon, we were in latitude 17° 56′, longitude 193° 23′. At sun-set we saw several sea-birds taking their flight towards N.E. probably to Waker's Island, which must be in this direction. We could not reach it, on account of the northerly wind.

On the 23d, in lat. 20° 15′, long. 195° 5′, we suddenly lost the trade-wind, after some strong gusts from all points of the compass, attended with rain, and the wind began to blow from the south. In this latitude we were surprised by the sight of an albatross.

On the 19th, in latitude 31° 39′, long. 189° 52′, we in vain looked out for land, and I now made straight for Unalaska.

On the 1st and 2d of April we found the current so strong, that on the 1st it carried us thirty-six miles to S.W. 23°, and on the 2d thirty-six miles and three-quarters S.E. 18°; at the same time the sea ran high from the S. which greatly broke the current in that direction. The temperature of the air had

fallen from 84 Fahren. of warmth, ten degrees lower, and we felt chilly.

On the 3d, in lat. 34° 27′ long. 193° 47′, we still found the current thirty-four miles to S.W. 81°; at the same time the wind was low, and we saw the water on the surface rippling, an effect which is produced by the current. So strong a current far from land is a remarkable occurrence; there may therefore be some unknown land about here. In the morning, a singular animal, which seemed to have but little motion, swam near the ship. The sea being calm, I had a boat lowered; the sailors rowed up close to it, and the spear recoiled from it twice, as from a wall; the third time it penetrated, and the creature was dragged upon deck. Our naturalists immediately recognized it as a fish, known in natural history by the name of the *swimming head.* This singular fish consists only of a head, six feet long, and of an oval shape, with a very small mouth; it probably feeds upon *molusces,* which it sucks from the surface of the sea; the external part of the fish consists of a gristle, covered by a rough skin. The flesh is something between fish and lobster, which we considered as a dainty, not having eaten any fresh provision for some time, and, as it was of considerable weight, it served our crew for several days. We found this day a dead albatross, which measured, with its wings extended, seven feet. I profited by a moment of calm, to make some observations with Six's thermometer, and obtained the following results:

The temperature of the air after Fahrenheit	60° 00′
On the surface of the water	58 50
In the depth of 250 fathoms	48 50

Transparency of the water six fathoms.

On the 5th, in lat. 35° 35′, long. 191° 49′, we found that the current had carried us within two days, fifty-two miles and three-quarters S.W. 34°. We saw one land-bird and several kinds of sea-birds, and sailed by two bamboo-canes and other pieces of wood, all proofs of being near land; still the hope of discovering it remained unaccomplished. We killed another swimming head, and found that at night its flesh shone like phosphorus. We began to be assailed by storms, which are here usual in spring.

The 13th of April was the terrible day which destroyed my fairest hopes. We were on this day in lat. 44° 30′, long. 181° 8′. As early as the 11th and 12th we had a violent storm with snow and hail; in the night of the 12-13, it broke out into a hurricane; the waves rose to a height which I had never witnessed before; and our ship suffered considerably. Soon after midnight the violence of the hurricane increased to such a

degree, that it tore away the tops of the waves, and carried them like a heavy rain over the surface of the ocean. Whoever has not witnessed such a scene, can form no idea of it; it seems as if the whole globe was about to be annihilated by a readful revolution. I had just relieved my lieutenant; besides myself, there were four sailors upon deck, two of whom were holding the helm; the rest of the watch I sent for the sake of security into the hold. At four o'clock in the morning, I was looking with amazement upon an immensely high wave, when it took its direction towards the *Rurick*, and in the same moment threw me down senseless. The violent pain which I felt on recovery, was forgotten at the sight of my ship, which was so shattered, that, had the hurricane continued for one hour longer, she would have been lost; as there was not a corner in her that had escaped the effect of that terrible wave. The first thing I saw, was the bow-sprit broken, and the force of the wave may be imagined, which, with one blow, would break a beam of two feet in diameter; this loss was the more considerable, as the two other masts could not long have resisted the violent rocking of the ship, after which there would have been no chance of escape. One of the sailors had his leg crushed; one mate was thrown into the sea, but saved himself by laying hold of a rope that was dragging behind the ship; the wheel was broken, the two men that held it were much hurt, and I, having been thrown with my chest against a corner, suffered great pain, and was obliged to keep my bed for several days. During the storm I had the opportunity of admiring the courage of our sailors; but no human aid could have availed, if the hurricane had not fortunately ceased. Kadu had been in great fear, for he expected that the large foamy waves would crush the poor vessel; he, however, felt very comfortable in his warm clothing, except the boots still troubled him a little. Mr. Chamisso profited by his presence, to increase his knowledge respecting Radack, and the Carolines, which he found tolerably easy, as Kadu quickly learnt the Russian language, and we improved our knowledge of his. When we left Radack, Kadu immediately began his account, by making every night a knot in a line; but after having been on sea a whole month, without seeing land, he gave up his account, convinced that we were now wandering about just as he had done, in his voyage from Ulle to Radack. When the hurricane ceased, and we had brought the ship in order as far as we could, we continued our route to Unalaska, during which we had yet many violent storms to encounter.

On the 21st, we were in great danger of being shipwrecked between Unimack and Unalaska. We were compelled by

circumstances to approach the land, which lay before us, when a gale suddenly drove us towards the coast, and we could almost calculate the hour of our destruction, when the wind happily veered round, a change very common near high land.

Kadu could not be persuaded that the high mountains covered with ice, which we saw from here, were land; as he had never seen any thing but small low islands, covered with cheerful green, it was no wonder that he did not recognize the land in these masses of ice, reaching to the clouds. I never saw him look at any thing with greater astonishment, than at the snow; and one day when he had caught some flakes, and found them quickly dissolve in his hand, he was horror struck, and thought he was in a land of enchantment.

On the 24th, with the help of a violent south wind, we penetrated through the channel, between Unalaska and Unalga, and in the night reached the harbour, just as a storm was breaking out. I would not advise any voyager to navigate these seas so early in the season; for the storms here are terrible.

On the 25th, we were visited by Mr. Kriukoff, who told us that all that I had ordered for my voyage to the north, was in hand, and that in May he expected the interpreter from the isle of Kodiak. We immediately set about unrigging the ship, which was damaged in all her parts, and wanted thorough repair. The hills round the harbour were still covered with snow, and the thermometer at noon only showed 3° warmth. During the whole time of our stay here, we had unfavourable weather, which annoyed us greatly in our work.

On the 27th, two interpreters arrived from Kodiack, who pretended to understand the language of the nations north of Aliaksa.

On the 4th of June, a dead whale was thrown on shore here, and set every one in motion; the Alioutskans crowded to the spot, and stuck to the half-putrified fish, like bees to honey; to us the stench was most intolerable. By an arrow which still stuck in the fish, they immediately knew who had killed it, and consequently, who was the proprietor. A part of such a treasure belongs to the district upon which it is thrown, and the natives may eat of it on the spot, as much as they can, and which they do for twenty-four hours without intermission. The proprietor is often involved in a quarrel with his guests, since they are not always inclined to leave him the dainty parts, i. e. those which are the most putrid. Some of the greatest delicacies in Unalaska are the fins of the seal, which are tied up in a bladder, and laid in the ground, where they remain till they are reduced to a fetid jelly.

The Alioutskans believe that the human race is descended from a dog, which fell down from heaven on the isle of Unalaska, where he brought forth the first man.

On the 29th, the ship being repaired, and every thing requisite got on-board, we left Unalaska. The sailor who had his leg broken could already limp about; but I still suffered great pain, which increased as we proceeded towards the north, nevertheless I had courage, and hoped to execute my undertaking.

Kadu, who was well in Unalaska, although the air did not perfectly agree with him, was surprised there was not one tree on the island, so that he could get neither bread-fruit nor cocoa-nuts. He seemed interested in every novelty he saw here; the life of the Alioutskans under-ground did not suit his ideas; he thought it was better living in Radack and Ulle, and he asked whether we lived in the same manner in St. Petersburg. We gave him such a fine description of that city, that he became very desirous to see it. The large oxen he beheld with astonishment and fear, and expressed great joy when he heard that the meat which was daily eaten in the ship, was of such animals. We asked him why he was so glad, and he timidly confessed that he thought we ate men, and that some day the turn might come to eat him. Soon after we left Radack, he saw the men open a cask of salt-meat; he was struck by a rib-piece; he thought of the warning of his friends, not to go with us, because we ate black people; from that moment the poor fellow considered himself as ship-provision, and fearfully anticipated the moment when there might be a scarcity on-board.

Observations in Unalaska.

The mean of several observations gave for the latitude of the village Illiuliuk-------	53°	52′	25″	N.
Longitude, from a number of observations between the sun and moon ----------	166	31	53	W.
Variation of the needle----------	19	24	00	E.
Dip of the needle ----------	68	45	00	

For the time of high-water, 7 hours, and 30 minutes: the greatest difference in the height of the water amounted to five feet and a half.

On the 30th of June, at five o'clock in the afternoon, we saw the Georgia Island, where, by Mr. Kriukoff's direction, I was to receive some necessary articles. It being too late to land, I tacked near the shore in the night, and, on the 1st of July took my course towards the north point, which is very low. As soon as we had doubled this point, we saw several habitations: the shores were covered by an immense number of sea-

lions, which made a terrible noise. We were met by a baydare with three men; one of whom, who was the Company's agent, and chief of the island, gladly offered us his services. As the island has neither a good anchorage nor harbour near, the *Rurick* was kept under sail, while I went on shore with our naturalist. The landing in this place is very inconvenient, and impossible with a brisk wind. The agent took us to his house, which lay partly above and partly under ground; a great number of warehouses for the sea-lion and seal skins lay scattered around it. This is the only inhabited spot on the island; there are twenty-five men who have been sent here, with their wives, from the Alioutskan Islands, for the purpose of killing sea-lions and sea-cats for the Company, under the direction of three of their officers. The agent, who is married to an Alioutskan woman, invited us to drink tea in his house, after which we went to the shore, where, within 200 fathoms of the habitations, the sea-lions lay in large herds. They, as well as the sea-cats, keep upon dry land during their breeding-time, and are expert in attacking any one who approaches them, while at other times the sight of a man drives them quickly into the sea. The scene which we now beheld was novel and singular; we approached them within twenty paces; the males attain the size of an ox, but the females are rather smaller. The former were engaged in an eternal strife for their mates, for they constantly endeavour to increase their number, which they can only accomplish by their bravery. The heroes are known by the number of their wives; they often lie from eight to ten close together, that their defender may be the better able to protect them; and the latter is constantly walking round them, roaring furiously, every moment expecting an attack, since the number of males seems to exceed that of the females. They fight so fiercely, that their blood and pieces of blubber are seen flying in every direction, and very frequently one of the combatants falls down dead, in which case the victor immediately enters upon the rights of the conquered, and appropriates the widowed seraglio to himself. The contest is always longest when one hero is attacked by several males at once, for, as soon as the former is subdued, the allies begin fighting among themselves, which they continue till the bravest has beaten all the others. The roaring of these animals is indescribable; during a calm on sea it may be heard at a distance of six miles; and their stench cannot long be endured. It is prudent always to keep at some distance from the lions, for, although they move but slowly on land, they sometimes take a leap of ten paces, and whatever they lay hold of is irretrievably lost. An Alioutskan, who had gone too near, had one of his arms en-

tirely bit off. Some of the females had young ones, which were lying round them. These are considered by the Alioutskans and Russian settlers as great dainties, and much sought after. The agent gave us some to take with us; for this purpose the mothers were frightened away, and the young ones driven inland, where they were killed. The cries of these young lions sound very much like the bleating of sheep; we found the taste of their flesh very palatable, but, when a year old, its taste and smell become too nauseous.

The sea-cats, which visit this island in small numbers only, (their chief haunts being on St. Paul's Island,) lay in separate groups. The male cat, (which is about the size and form of the female sea-lion,) is as large again as the female. The males have also several wives, but, although they are not under the necessity of fighting for them, they must be constantly on the watch to keep their wives, who take every opportunity of running away. Males are often found lying alone and mourning aloud for the loss of their favourites. The skin of these animals is much sought after in China, and is sold at a high price even in Russia. The American company obtain a considerable revenue from this island, and that of St. Paul. About thirty years ago sea-otters were so frequent here, that one man might kill from 2 to 300 of them in one hour; but when they found themselves so closely pursued, they all at last withdrew. At noon, we left the island, and steered our course to the isle of St. Paul's, where I hoped to get cloth for warm clothing. Georgia Island is of a moderate elevation, runs in a straight line, and seems to have been thrown up by a volcano. Although its situation is more northerly than Unalaska, the latter island is colder, owing to its high mountains. The inhabitants said that, for the last two years, they have seen a fire rising in the N.E. during the night, and are of opinion that a volcano lies in that direction. This volcano cannot be on the continent, as the distance would be too great to see it burning; if therefore it is a volcano, it must be on some unknown island.

On the 2d of July we came in sight of St. Paul's, and were immediately met by the Company's agent, who supposed our ship belonged to them, which are always laden and unladen on the open sea, there being no harbour in the island. At seven o'clock in the evening, we arrived on the south side of the island, within five miles of the Company's settlement. We were visited by some Alioutskans in their small baydares, although a thick fog partially obscured the land from our view: a present of spirits and tobacco much pleased them. The thermometer during the whole day only showed 4° of warmth.

On the 3d, early in the morning, having announced our ap-

proach, by the firing of a signal-gun, a baydare, with twenty rowers, came from the island, loaded with the articles which we had requested. The agent confirmed Mr. Kriukoff's statement, that land had been seen S.W. of this island. In order to obtain the exact direction of the place, where it had appeared to them, I went on shore, where I placed my Azimuth-compass on an eminence; but here the needle constantly turned round, an effect which was probably produced by the great quantity of iron which lies about here; for, when I changed my place, the needle soon became stationary, and the position of the pretended land was pointed out to me in S.W. ¼ W. The Company keep here about 200 Alioutskans, under four officers, who have all been sent from Unalaska. The land is much lower than Georgia Island, and we found several flowers on it; the shores are covered with sea-cats, as thickly as they are in other islands with sea-lions. The Company derives the greatest part of its revenue from the former. It was about noon when we returned on-board, and we left St. Paul's in clear weather, and with an easterly wind, taking a S.W. course, in hope of discovering the land which had been seen.

We found the latitude of Sea-otter Island, (a small island, close by that of St. Paul's,)-- 57° 2′ 17″ N.
The longitude, by the chronometers-------- 170 10 35 W.

On the 4th, at noon, we were, according to a good observation, in lat. 56° 30′ 32″, long. by the chronometers, 172° 2′ 37″. The horizon was clear, the weather fine, and the wind blew gently from the north; the isle of St. Paul's was now sixty miles from us, and we looked in vain for a new island, which could not have escaped us, if it really existed. I followed the same direction till five o'clock in the evening, when, as we still saw no land, I made straight for the east point of St. Lawrence Island.

On the 10th, we cast anchor within two miles of a village, which we perceived on the coast of St. Lawrence Island, in four fathoms and a half, on a stony bottom. We lowered two boats, in order to go on shore; at this moment we saw, through our glasses, several people, loaded with luggage, hastening from their dwellings towards the hills, whilst others armed themselves with lances. When we approached the landing-place, we found twenty tall, stout men, who looked at us fearfully but cordially, without stirring. They strongly resembled the inhabitants of the west point, and, when I saw how much our arrival frightened them, I declined visiting their habitations, and contented myself with trying the skill of our interpreters, who only made themselves understood with difficulty. We,

however, learned that they are in trade with the Tschuktschi, from whom they exchanged tobacco, iron, and beads, for skins. While we were conversing with them, a baydare, drawn by dogs, returned from a trading expedition from the Tschuktschi; and the people showed us some articles which they had bought of them. They call the natives of the American continent their brothers, and, as they are in constant communication with them, and also speak the same language, there appears to be no doubt, but that the natives of this place are of American origin. The eastern part of the island, on which we now were, is called by them Kealegack, and the western Tschibocka. The first question they put to our interpreters was, where we came from, and whether we had any intention of killing them; but, after we had given them some beads and tobacco, they lost their suspicion. They told me that the ice had moved only three days ago from shore. This intelligence destroyed my hopes of penetrating into Behring Strait, since I could not expect that it would be free of ice during the next fortnight. Kadu would not believe these people were human beings, on account of their fur dress; he pointed out to me the knives in their sleeves, and afterwards kept his pocket-knife in readiness, in order to defend me against any danger. Having returned to the *Rurick*, we set sail for the north point of the island. The small island, which, on Cook's chart, is drawn as one, we found, while we were sailing by, to be separated by a narrow channel. At midnight, at the moment we were dropping anchor, near the northern cape, we discovered, to our great consternation, standing ice, reaching as far as the eye could reach to N.E. and N. At the same time, my health, which from Unalaska had gradually declined, received an additional shock. The cold air so attacked my chest, that I lost my breath, and at last had spasms, and fainting fits, and began to spit blood. I now perceived, for the first time, that my situation was more dangerous, and my physician positively declared to me, that I could not remain near the ice. It cost me a painful struggle before I could resolve on returning, and nothing but the consciousness of having fulfilled my duty, could support me in this severe trial. I informed the crew in writting, that my illness compelled me to return to Unalaska. The moment of signing this paper, was the most painful in my life, for, with this writing, I gave up a long cherished wish of my heart.

From St. Lawrence Island to Guaham.—During our voyage to Unalaska, where we arrived on the 22d, nothing remarkable occurred, except, that we ran upon a sleeping whale, by which the ship received so great a shock, that, lying in bed in

the cabin, I thought that we had run on a shoal. The whale, in his first fright, made a violent leap, and then darted to the bottom. In Unalaska we found every thing in blossom. I lived on shore, and recovered health in some degree. We employed ourselves here with baking biscuit of bad flour; our ship being too small to hold provisions for two years, we had for the last six months been reduced to half-allowances, and, notwithstanding this economy, our stock would not have lasted above three months more. We had taken a large quantity of dried stock-fish from Unalaska, which, on our voyage towards the north, served in some measure to replace the want of biscuit; the officer's table was as scantily served as that of the sailors, and our only change consisted in having the stock-fish at one time as a pudding, at another with a sauce. The greatest treat was when it was served with syrup, although the fourth part of this consisted of sea-water. We obtained it at Unalaska and St. Paul's, from the agent, to whom it had been brought from China, in United States bottoms. We could not learn who it was that mixed sea-water with the syrup; undoubtedly he found his advantage in it, but we suffered from it by swellings of the stomach. Our want of provisions, and the state of our ship, brought me to the resolution to go straight to Manilla; but, to make this course advantageous, I intended to touch on the Sandwich Islands, for the purpose of taking plants and domestic animals from thence, and leaving them in Radack. Before leaving Unalaska, I will communicate what I heard from Mr. Kriukoff, respecting the appearance of the new island, as he had witnessed this phenomenon personally.

On the 7th of May, 1796, he arrived with some hunters on the northern point of Umnack, east of Unalaska, having chosen this spot as a resting place after a wearisome excursion. They intended to continue their voyage on the next day in their large baydare to Unalaska, but were frustrated in this design by a violent storm from N.W., accompanied by rain. This storm continued to the 8th, when the weather cleared up; and they in the N.W. saw, some miles from shore, a column of smoke rising from the sea; towards the evening, they perceived beneath the smoke a black object, which rose but little above the surface; during the night fire rose in this direction, frequently so high, and in such flames, that they could distinguish every object on the spot, where they were, although it was ten miles off. Their island was shook by an earthquake, and they heard a terrible noise proceeding from the mountains in the south. (It seems in fact, that all the Alioutskan Islands are of a volcanic origin; they chiefly consist of conical hills, some of which exceed the Peak of Teneriffe in height; for-

merly all of them emitted flames, and some even now.) Our poor hunters were in great fear; the rising island threw stones among them, and they anticipated speedy destruction. At sun-rise the shocks ceased, the fire diminished, and they distinctly saw an island, which had the form of a black pointed cap. When Mr. K. visited Umnack again, after a month's time, the new island, which, in the interval, still continued throwing up fire, was found to have increased considerably in height. Since that time it emitted only a little fire, but great quantities of smoke; it had increased in size and height, and frequently varied in shape. After four years' time the smoke disappeared, and after eight years (1804,) the hunters began to resort there again, as they found that it had become the haunt of great numbers of sea-lions. The water round the island was found warm, and the island itself, in some parts, so hot, that no one could step upon it. To this very moment the island is said to increase in height and circumference. An intelligent Russian, who had been there, told me, that it was two miles and a half in circumference, and 350 feet high; for three miles around it, the sea is covered with stones; from the middle to the top he found the island warm, and he thought that the smoke issuing from the crater, had a pleasant smell. About 100 fathoms north of this island, is a column of rock of considerable height, which is mentioned by Cook; at some distance, he took it for a ship under sail. This rock has likewise been seen by our navigator Saritschef, which has occupied this spot for ages; but now we know from experience, that it is connected, under water, with the isle of Unimack.

On the 18th, at ten o'clock A.M. we left Unalaska for the third time. Kadu, who was very much pleased, when he heard that we were going to Radack, immediately set about forming a collection of rusty nails and other pieces of old iron; on shore he picked up every stone he thought fit for grinding, and, in short, did every thing in his power, to benefit his friends. Still he had no intention of staying there; Petersburg had too many attractions for him. The large quantity of iron which we carried as ballast in our ship, appeared to him a sign of immense wealth; and he would not believe his own eyes, when he saw it unloaded in Unalaska. I left part of this iron for the Company, who were in great want of it; I also supplied them with tobacco, an article of the utmost value to them, since the Alioutskans will not exert themselves, without having some of this herb to chew. On the other hand, I undertook to carry for them two hundred morse-teeth to St. Petersburg, to shew the Company my gratitude for the kind reception I had met with. In the evening, we were out of the bay, that forms the

entrance to the harbour; a great number of whales sported round our vessel, throwing themselves high in the air, and falling back with a terrible crash, which spattered the foaming water in all directions. The Alioutskans enumerate seven species of them, all of which are probably still unknown in natural history. One of these species is a beast of prey, being the size of the largest whale, and has, what is uncommon among whales, a large mouth, full of terrible teeth; he swallows every thing he can seize hold of, and frequently pursues the Alioutskans, whose small boats, when he can overtake them, he smashes to pieces with one blow of his tail. It is even said, that lately a baydare of twenty-four oars, containing thirty people, was destroyed near Unalaska, by the blow of such a monster. Mr. Kriukof gives a curious description of a marine monster, which pursued him near Behring's Island, where he was on a hunting-expedition, and several Alioutskans affirm that they have frequently seen the animal he alludes to. It is the shape of a serpent, of a reddish colour, and enormously long; the head resembles that of the sea-lion; at the same time, two disproportionately-large eyes give it a frightful appearance. "It was fortunate," said Mr. K., "that we were so near the shore, otherwise the monster would have swallowed us; it erected its head considerably above the water, looking out for prey, and then disappeared; the head soon re-appeared, but considerably nearer; we rowed with all our strength, and were glad to reach the shore before the serpent. The sea-lions were so terrified at the sight of it, that some of them plunged into the sea, and others concealed themselves on land." The sea sometimes throws pieces of flesh on shore, which are supposed to be of this serpent, and which no animal will eat, some Alioutskans who had tasted of it, died suddenly. The Alioutskans likewise speak of a gigantic polypus: one of them once threw its long arms, which are twice as large as a strong man's arm, round the baydare of an Alioutskan, and would have pulled it to the bottom, if the man had not the presence of mind to cut with his knife through the huge arm of the polypus. This animal lies with its body on the bottom, and generally selects a spot from whence it may reach the surface with its arms. The latter incident occurred in the passage which is formed by the south point of the isle of Unimack, and the small island lying close by it, which cannot be navigated by a ship, on account of the shallows which it contains. This island, which is five miles long, and one mile broad, and very low, is not to be found in any chart, and I hope that our survey of the Alioutskan islands, as far as the west coast of Unimack, will be found correct. Owing to a N.E. wind, which

blew the whole of the 19th, we did not pass through the channel between the islands of Unimack and Akun, which is in all respects the safest passage into the ocean, till the evening of the 20th.

On the 21st, in the morning, we distinctly saw the two high mountains of Unimack and Aliaksa, the latter of which emitted large volumes of smoke. Some years ago this mountain had a strong eruption, by which its conical top fell in; the report occasioned by this fall, was so strong, that it was heard in the mountains of Unalaska like thunder, although the distance is ten miles. During this explosion, the mountain threw out a great shower of bullets, of the size of a walnut, of which I have one in my possession; their chief substances are lava and iron.

On the 23d, the wind shifted to the south. A great flock of albatrosses flew about our ship;—I thought of the idea of some eminent men, who imagine that this bird flies from the north to Cape Horn, to hatch there; common sense even will refute this opinion. The Alioutskans are in the habit of seeking their eggs on the tops of their mountains, for the purpose of eating them; they lay them generally so high, that it is but with difficulty the natives gain access to them. They shoot them in autumn, when they are fattest, with arrows; and their fat is considered as the greatest delicacy. The black albatrosses, which by many are considered as the young of the white ones, are, according to the Alioutskans, a peculiar species.

On the 10*th of September*, the wind at last blew again from the north. We were at noon in 40° 10′ latitude, and 147° 18′ longitude. For eighteen days we were constantly tacking in thick fog and fine rain, and often the storm was so violent, that we were obliged to use the storm-sails. When the sun again appeared, we found that our chronometers differed by 5° from the longitude of our ship's account, consequently the current had driven us, these eighteen days, all this distance to the east. The increasing warmth, as we approached the south, proved beneficial to my health.

On the 13th, in lat. 36° 9′, long. 148° 9′ I profited by a calm to lower Six's thermometer into the sea, and obtained the following results:

Temperature of the air on the surface	73°	00
water on the surface	71	90
in a depth of 25 fathoms	57	10
100	52	80
300	44	00

Transparency of the water, thirteen fathoms.

On the 14th, in lat. 35° 51′, long. 147° 38′, there being another calm, I obtained the following results:

Temperature of the air on the surface	75° 00
water	72° 20
in a depth of 4 fathoms	72° 00
8	70° 90
15	68° 10
25	57° 60
50	54° 00
100	51° 00
408	42° 00

Transparency of the water, 11 fathoms.

While I was making these observations in a boat, a shark came so near to us that one of the men gave him a blow on the head; the animal took its revenge by biting through the line to which my thermometer was tied, and I lost the instrument just when I had sunk it for the first time in 500 fathoms, and very anxiously waited for the result; the line was made of whale-gut, in Unalaska.

On the 21st, in lat. 27° 50′, long. 152° 27′, three small snipes flew round the ship, and at last were lost sight of; but, although these birds seemed to announce the proximity of land, we looked out for it without success. The Spaniards place an island in this vicinity, which they call *St. Maria la Gorta.*

On the 23d, in lat. 27° 50′, long. 152° 22′, I profited by another calm to use my second and last of Six's thermometers.

Temperature of the air on the surface	77° 10
water	77° 00
in a depth of 5 fathoms	75° 00
10	75° 00
25	73° 70
50	67° 20
100	61° 00
200	51° 50

Transparency of the water, 16 fathoms.

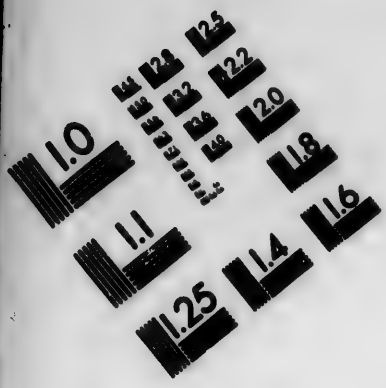
On the 23d, lat. 26° 41′, long. 152° 32′, we again fell in with the N.E. trade-wind.

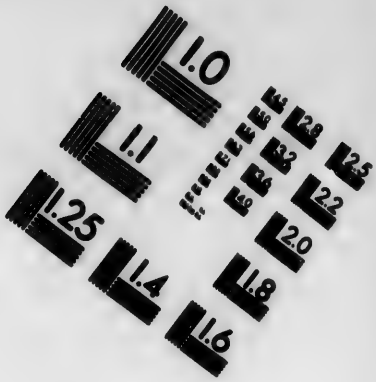
On the 26th, at seven o'clock A.M., we descried Mauna-roa, in Owhyhee; at sun-set we doubled the north point of the island, and at midnight we were under the wind of it, about four miles off the shore.

On the 27th, at day-break, we had a perfect calm, and were opposite Young's possession, near Tocahai Bay. A pretty young girl profited by the calm, and came beside the ship; her gesture clearly indicated her purpose, and she appeared very much vexed when she found herself unnoticed. Kadu was quite

stupified at the sight of this nymph; he accosted her in every language of which he had some knowledge, even in Russian, and, as she did not understand him, he vehemently begged me to let her come on-board, which I had good reason to refuse. He, however, threw her out all his beads, and beckoned to her as long as she remained in sight. A second boat, with five Sandwichmen, soon put him in good humour again. These savages brought us taro-root and water-melons, which they sold at a very high price, and we were informed by them that Tammeamea was just then on Owhyhee. Towards noon a gentle sea-breeze sprung up, and enabled us to advance slowly along the coast towards the south. I wished to reach Karakua Bay, where I expected to meet with the king; but, at sun-set, we were again becalmed, being yet at a considerable distance from the bay.

On the 28th, when we were near the Bay of Teiatatua, we were visited by two chiefs, who came out fishing, and recognized us as old acquaintances; they told us that Tammeamea was in the bay, and, after having succeeded in cheating us, they went off in great glee. Soon after we saw a second boat making towards us with great celerity, and we espied in it our old friend, Mr. Elliot, who, having recognized the Rurick through a telescope, followed us in great haste, as we had already passed the king's abode. We tacked about and took our course into the bay, where Tammeamea then resided for the purpose of catching bonitos. We went in Elliot's boat, which landed us at noon in the king's encampment, standing on the shore on a lava plain, where every one was exposed to the burning rays of the sun. About twenty years ago a volcanic eruption took place from a neighbouring hill; the lava ran into the sea and formed the plain, where they had pitched their straw tents scarcely large enough to contain three people. The king lives as uncomfortably as his nobility, and, if they murmur, he tells them, justly, "I am not a straw better off than you; if I leave you on your estates you will grow as fat as your pigs, and have no other thought than that of injuring your king." After having staid two months in this place, and the patience of his chiefs was properly tried, he intended to leave it in a few days for a more pleasant abode, and this intention he announced to them by saying, "Now you will know the better how to value your comforts." Just before our arrival, Tammeamea had sailed out to fish, and, in the mean time, Elliot took us to his wives, who were sitting in the middle of the camp upon fine matting, under a screen of white sail-cloth, trying to cool themselves by eating water-melons. They were very glad to see us again; and Kahumanna made me sit down by her side,





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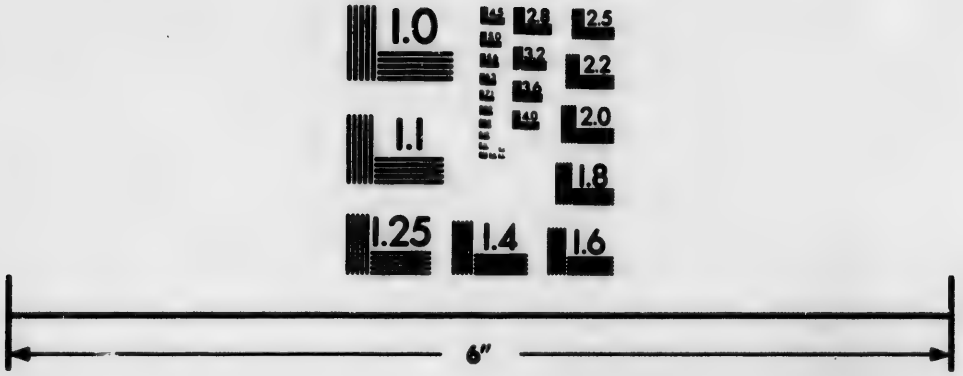

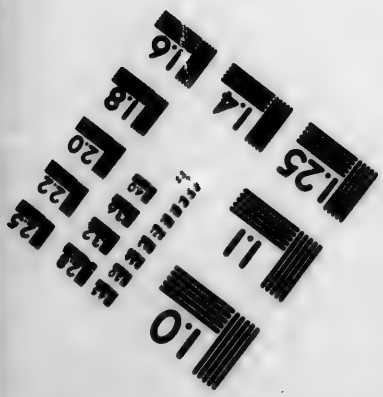

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and, after having made some general inquiries, she sent for more melons. She was so polite as to order a canaka to keep off the flies from me with a broom of red feathers; she herself cut out the inner part of a melon, and put the piece in my mouth with her own hands, in which her royal nails, three inches long, rather incommoded me. She asked me whether the favorite queen in my country was as polite to strangers as she was. I replied we had a very kind, condescending queen, and only one. This intelligence surprised her greatly, having heard that our king was a great monarch, and therefore was justified in having many wives. Kadu was an object of great curiosity; the queen was struck at the size of his ear-laps, and examined them closely. The people on hearing that he was from a newly-discovered island, collected round him in crowds; several chiefs, and even the queen, made him liberal presents; at first he looked rather timid, yet he was highly pleased, particularly when two young girls took hold of him and led him about the camp. It was about sun-set when the king returned from his fishing expedition, which he carried on with hooks, at some distance from shore. Without taking time to dress himself, he came up to me naked, and shook me by the hand most heartily; one of the ministers dragged a couple of bonitos behind him, and the king said, ordering one to be laid at my feet, "This fish I hooked myself, and beg you to accept it as a testimony of my friendship." His wardrobe was then brought, consisting of a shirt, a pair of old velveteen breeches, a red waistcoat, and a black cravat; and he dressed himself without ceremony in my presence. His embroidered uniform he only wears on solemn occasions, and then very reluctantly. Once he said to Elliot, "The uniforms which King George (it is thus he calls the king of England) sent me are certainly very dazzling, but they are of no use to me, for Tammeamea outshines every thing!" While he was dressing I perceived that he had several wounds about his body, and, on asking in what campaigns he received them, he replied, pointing to the N.W., "I have conquered those islands, and the scars prove that I deserve to be king of the whole cluster." When he was dressed, he sat down near his house on a mat, under the open sky; another mat was spread out for me; and, while he continued smearing paste in his mouth, he entertained us with an account of taking the bonitos. He seemed much interested in Kadu, who felt the greatest respect for him, and whom he considered as the first tamon in the world. Having no time to lose, I immediately spoke about the provisions which I wished to take in Wahu. The king replied, "I cannot transact any such business with you to-day, my son *Lio Lio* having had a dream last night, which forebodes misfor-

tunes. The dog of all dogs swallowed in his dream the queen Kahumanna, and threw her out again as a horrible monster, which immediately set about ravaging the country; I therefore must believe that to-day you are the harbinger of misfortune." I, however, assured the king that our ship concealed no such monster as the dog of all dogs had emitted, but that, on the contrary, he had not a more sincere friend than myself; and, after much persuasion, I succeeded in being despatched the same day. One of the chiefs, Kareimoku, a relation of the governors of Wahu, was made to sit down on the ground to receive his commands, which were, that we should have the same quantity of provisions as we had had last year, and to receive us in the same friendly manner: then, addressing himself to me, he said, "Now you may proceed on to Wahu; take this chief with you, and he will supply all your wants; I require no payment for my provisions, but, if you have any iron to spare, you will oblige me with it, for I want it in building my ships." I willingly made this promise, and hastened to take my leave. Our attendant, young Kareimoku, behaved very respectfully; two kanakas who he had to wait on him shewed that he was of a high rank. We advanced but slowly, owing to the weakness of the wind, and were a whole day becalmed near the Isle of Ranai. Ships ought not to come too near this island under the wind, as the trade-wind, intercepted by its high land, cannot act here.

On the 1st of October, at five o'clock P.M., we at last reached the anchorage of Hana-rura. Soon after, a brig under American colours anchored by the side of us; the ship, which actually belonged to that nation, had been hired by Baranof, in Sitka, for the purpose of carrying a cargo of fur to Ochotzk, and was now returning, having discharged her cargo. I soon went on-shore, whither my attendant had already preceded me in a canoe belonging to some of the natives. We found the harbour in a lively state; eight ships were lying here, six of which carried American colours, and one Tammeamea's; the eighth belonged to the Russo-American company, and lay upon the shore. When I approached this flotilla, the Americans gave a salute with their guns, a mark of politeness shewn to me as the commander of a Russian man-of-war. On landing I was politely received by the captains, and accompanied to Kareimoku's house, who was very well pleased to see me again. Even from a distance he welcomed me, by exclaiming *aroah*; three shots were fired from the fort, and at every shot he pressed my hand and repeated his *aroah*. He intimated to me, by Mr. Young, that he had already received the king's orders, but, even without them, he would have provided for me every thing.

I begged for some boats to tow me in, but the American captains kindly offered me the loan of their boats, which they promised to send the next morning.

On the 2d, at day-break, according to the custom of the place, I fired a gun, and soon after the boats appeared, which brought us to anchor on the same spot where we had lain last year.

We had scarcely arrived when Kareimoku, accompanied by Mr. Young, appeared on-board, followed by a large boat, loaded with vegetables, fruit, and a large pig. I received him with three shots; the fort saluted with seven, and I answered by an equal number. The governor informed me, with great glee, that Dr. Scheffer had lately been driven from the Isle of Otuwhy by the king and the people, and had recently arrived here with his people, consisting of one hundred Alioutskans and some Russians, in the ship Kodiack, which now lay on the shore. The ship was in so shattered a condition that the crew, during the whole of their navigation from Otuwhy to Wahu, were obliged to pump to keep her from sinking, and, on reaching the harbour, were obliged to let her run on-shore. Kareimoku told me that he had received the fugitives well, because he would not return evil for evil. Even Scheffer had been permitted to embark on-board an American ship, which, but a few days before our arrival, had sailed for Canton. Kareimoku had scarcely finished his narrative, when Mr. Taracanof, agent to the Russo-American Company, with some other officers of that establishment, came on-board. He had been placed under the orders of Scheffer, whose conduct in Otuwyh he censured, and he wondered that, in their flight from the island, only three of their people had been killed, as it was entirely in the power of Tamary, who considered them all as his greatest enemies, to destroy many more. He was now here with his people in the most melancholy situation, being without provisions, for want of money. Happily I had such a quantity of stock-fish on-board that I could supply these poor people with provisions for a month. Taraconaf had entered in an agreement with Mr. Hebet, the owner of two vessels that lay here, to keep the Alioutskans for a whole year in board and cloathing, on condition that he might take them to the islands on the coast of California, where they were to be employed in the catching of sea-otters; after the lapse of the period, the American is to take them back to Sitka, and to give the company half the produce of the skins. In this manner the company frequently lets out the Alioutskans; and these wretched people will remain the victims of tyranny as long as the company remains under the control of a monster, who purchases every advantage with the blood of his fellow-creatures.

On the 6th of October the American brig Boston came in; after having doubled Cape Horn, she had touched upon Sitka, and was now on her voyage to Canton. We purchased some biscuit from her.

Kadu had acquired several friends in this country, where many objects engaged his attention: one day he was particularly terrified by seeing a man on horse-back, whom he took for a large monster. The natives took pleasure in instructing him, and, as he took a particular interest in agriculture, I entertained hopes that he would become useful to the people of Radack.

On the 8th the captain of an American schooner struck a bargain with Kareimoku about a cargo of sandal, for which he gave him a ship lined with copper; a circumstance which shews how dearly the Americans sell this wood in China. Several ships that lay here, paid for this wood with goods or piastres, which it is delivered to them by the weight in the governor's presence. I took a walk every evening on shore, which may be done in perfect security, for, although drunken people are often met with, it is just in this situation that they are merry and pleasant. They intoxicate themselves with the Awa-root, which is prepared in the same manner as on the other South-sea Islands, with the difference that old women only chew the root, and the young merely spit in it, to thin the paste. The unwholesomeness of this root is evident from the many sores with which the people are covered. The rich people intoxicate themselves with rum, which they purchase from the Americans. Since the introduction of spirituous liquors and tobacco, together with several diseases, by the Europeans, the population of these islands has perceptibly decreased; many fields, too, are lying uncultivated, as the natives are compelled to cut sandal-wood. On my road to the plantations, I met with two boys carrying large bundles of bananas, and, after every hundred paces, they stopped, in order to call the attention of the passengers. The men immediately threw themselves on the ground, covered their faces with their hands, and did not rise till the boys had passed by; the women were even compelled to undress themselves at the sight of the boys. I was told that this evening a great *tabu* (taboo) was to begin, the bananas were being carried to the murai, where they were to be sacrificed to the gods; therefore this kind of submission was shewn to the bearers of the holy fruit. On passing by the house of a great chief I found him sitting outside the door, with some others, waiting for sun-set to repair to the murai; he addressed me in a very friendly manner, but warned me against touching him, lest I should become tabu by it, and be obliged to go into the murai.

During this dangerous time the women must not appear before their husbands, and, if one should be so unfortunate as to touch him, she is punished by death. I even saw the corpse of a woman swimming about the harbour, which was thrown at with stones by adults and children, and I was told that she had infringed a *tabu*.

On the 11th, I was attracted towards the *murai* by the hollow sound of a drum; but, thinking that admission was prohibited, I stopped at some distance. This being no tabu-day, I supposed that the persons engaged in it were priests. Two Sandwich men came towards me, addressing me with the words, *Aroha Jeri nue* (be welcome great chief), and invited me to enter. I was rather surprised when I obtained this permission, and was a little fearful that the priests might take a fancy to sacrifice me to their gods, and, on entering through the holy gate, I resolved to be at least upon my guard. As this *murai* was built in great haste, after the destruction of the old one, it could give me no correct idea of their sanctuary; I only found here a piece of ground of about fifty square fathoms, paled in with bamboo: in the middle of this place, six small houses, standing close by each other, formed a semi-circle; each of these chapels was surrounded by a bamboo-enclosure over which the colossal heads of the gods appeared, like sentinels. The immense necks, supporting these heads, were hung with *pore*, and some of them only retained the skeleton of a rotten pig. Although annoyed by the stench, and inclined to smile at the sight of these idols, I refrained from noticing them: my surprise was therefore the greater, when the priests themselves called my attention to the caricatures, handling their noses and eyes, and trying to imitate their distorted faces, and at the same time heartily laughing at their own wit. Near one of the cottages stood two rudely-finished statues, representing a man and a woman; between them a pole was driven in the ground, the top of which was hung with *bananas*. Both extended their arms towards the fruit; which reminded me of Adam and Eve, but unfortunately I had no one near me that could afford me an explanation of the allegory. The priests gave me to understand that the two statues, who held their mouths wide open, had them filled with human teeth. One of the small chapels was laid round with matting; from this issued the sound of a drum, frequently interrupted by the pitiful groans of a human being; and the whole made such a sad impression upon me, that I felt happy when I left the place. On my return I met with a large company of ladies, sitting before a house, round a fire, before which a dog was roasting. They invited me to participate in their feast, for which, however, I had no leisure. The women in these

islands, who are prohibited from eating pork, indemnify themselves with the flesh of dogs, which are fed for that purpose with fruit only. There is a peculiarity in these dogs, which seems to belong to the species of our terriers, that they never attach themselves to men, and are therefore kept among the pigs.

I intended to have sailed on the 13th, but Kareimoku, who had to perform a tabu that day, begged me to stay till it was over, as he wished to accompany me; besides, he represented that I should have nothing but misfortune, if I sailed during a tabu. As he had always been very kind to me, I consented to his request, and in the mean time the ship was put in trim, and we took in all the provisions, together with a great stock of animals, such as goats, pigs, dogs, cats, pigeons, &c.

On the 14th of Oct., at sun-rise, I was ready to leave the port, and the American captains kindly sent their boats again to tow me out. Kareimoku, who was just coming from the *murai*, told me that, on his urgent request, the gods had promised they would protect us on our voyage, that we might come into our country with whole heads and sound feet, and he doubted not for a moment but that we should have a prosperous voyage. He brought us water-melons and fish from his tank, and, behaved altogether much more friendly to us than to the captains of the merchantmen, to whom he conducted himself haughtily. On parting, I made him a present of a portrait of Tammeamea, and he left me with a hearty shake of the hand, again recommending me to his gods. Young Kareimoku received the presents for the king, and shouted with joy when he put on one of my embroidered uniforms, of which I had made him a present. Soon after our friends had left us, we hoisted all our sails, and with a brisk land-breeze, sailed S.W. by W. in the direction of Radack.

On the 20th we saw several snipes; by our calculation we could not be far from the Cornwallis Islands, our lat. at noon being 16° 45′ 12″ N. and our longitude, by the chronometers, 169° 16′ 37″. I continued my course to west, a few miles farther north than I had gone last year, because I thought that the islands could not be so much to the south as they are on Arrowsmith's chart. At two o'clock P.M. land was seen at a distance of thirteen miles in W. by N. ½ W. What we saw was only a small round hillock; an hour later, at a distance of eight miles, we saw that this hillock formed the northern part of a low island, the whole circumference of which might be about a mile. One mile north of this island, a second was seen, which was as low and still smaller. While engaged in surveying them, we almost ran upon a rock, which, dazzled by the

sun, we had not perceived till we had passed over. It was five miles from land, the rock was scarcely two fathoms under the water, and close by it the sea was bottomless. Probably it was the point of a coral-bank, with which, as we judged from the surf which we afterwards saw in N. and E., the islands seem to be surrounded; and we found it impossible to get near them on either side: with the glass I could clearly distinguish that they consisted of barren rocks; on the hill which we had seen first, I distinguished a white spot. Towards the evening I left this place, taking a southerly course. We found the latitude of the hill 16° 45′ 36″, longitude, by the chronometers, 169° 39′ 21″ W. Variation of the needle 9° 47′ E.

On the 21st, we saw several ducks flying from N.W. to S.E. According to Anson's chart, we were in the vicinity of Basso de la Villa Lobos. Arrowsmith's chart gives no bank in this vicinity, but we have reason to believe that there is one about this spot.

On the 30th, at eight o'clock A.M. we descried the isle of Ormed, belonging to Otdia. Kadu's joy at the sight of it was indescribable, and he could not conceive how we had found these islands again, after so long a navigation. The wind, which during the whole voyage had blown from E. and E.N.E. suddenly shifted to S.E. an uncommon occurrence between the tropics. Five miles W. from Otdia, we were overtaken by a heavy fall of rain, and a violent wind compelled us to furl the topsails. The wind was too high to stand out in the open sea, and drove us towards the reefs, when one puff of wind, which came upon us with the fury of a hurricane, would inevitably have thrown the mast overboard, had we not quickly taken in all our sails. These puffs of wind, together with the rain, lasted above an hour, and we already saw the breakers near us, against which our ship must have been wrecked, had not the fury of the wind abated. During the most dangerous time, a whale sported near our vessel, and seemed impatiently to wait for our destruction. It was one of the species with large-teeth, called by the Alioutskans, *plawun;* the usual haunts of which are only in the north. The adverse weather had no influence on the barometer. After a few hours the wind again settled in the east, still continuing violent through the night, during which we kept tacking in sight of the land.

On the 31st, we reached Schischmareff Strait at ten o'clock A.M. In a boat, which we overtook, we recognized our old friend Lagediack, who in his joy made the most ludicrous gestures, and repeatedly exclaiming, *Aidara, Totabu, Tumisso, Timaro!* As we were sailing with all our canvass, he could not come on-board; he, therefore, took his course to Otdia,

whither he invited us to follow him. Kadu intended to keep himself concealed from his friends in the canoe, and to surprize them on-shore; but his violent joy overthrew all his plans: they were scarcely near enough to be spoken to, when he suddenly started in sight of them, exclaiming, Look here! I am Kadu; do you still know me? He then entered into a lively conversation with them, which frequently drew forth their O—h! At five o'clock we dropped our anchor, near Otdia, on the same spot where we had laid before. Immediately Lagediack, accompanied by some people whom we had not seen before, came loaded with cocoa-nuts; when he appeared upon deck he entirely gave himself up to his expressions of joy, danced and sang, and embraced us one after the other; at last he took a fresh wreath of flowers from his head and put it on mine, at the same time calling out repeatedly, *Aidara*. His companions, although strangers to us, imitated him in every movement. When he became a little more calm, he made Kadu sit down in a circle, which he and his companions formed round him, and immediately Kadu began his narrative, his eyes sparkling with joy, while the countenances of his auditors expressed the feeling which his verbose discourse inspired. At last we interrupted the orator, who was already foaming at the mouth, as we wished to have some account of what had passed on the islands during our absence. I wondered Rarick did not come to see us, and was informed of the following circumstances: A few days after we had left the cluster Aur, the old chief Lebeuliet went to Otdia, where he compelled the people to give up to him part of the iron which I had left with them, and, after having taken from Goat Island the only three goats that were yet alive, he sailed back to Aur. Some months after, Lamary arrived with his fleet from Udirick, and took from them all that was left of our presents. I asked Lagediack why they did not resist this unjust proceeding? to which he replied: then Lamary would have killed every one of us. The king stayed here two months, in order to supply his army with *mogan;* and, when he left, he took away with him most of their bread-fruit and cocoa-nuts, of which he only left so much as was necessary for the bare existence of the inhabitants. Rarick, Langin, and several others of our acquaintance, had accompanied him, and none but women, children, and a few old men, in all not above fifteen individuals, were left behind. The army was now collected in Mediuro; but it had not come to a battle, as Lamary waited for the enemy's attack; it was, however, said to be his intention to attack them, if this should not take place soon. I inquired about the garden, and was told that the rats had destroyed every thing, except a few

roots, which came on very well, till the great rat, as he called Lamary, took them away. I regretted this circumstance, but hoped that our plantations had better success in the other islands. I now shewed them the various plants and animals I had brought for them, which gave them much satisfaction, particularly Lagediack, who embraced me repeatedly. The orange-trees, vines, potatoes, yams, and taro-roots, were in excellent condition. The pigs which we had left here had died, probably from want of water.

On the 1st of November the plants and roots were taken on-shore, the old garden dug again, and Mr. Chamisso planted almost every thing himself. All the natives were present, to be instructed in the manner of cultivating each plant, and Kadu performed the office of interpreter. He was, however, so taken up with his own adventures, which he wished to relate, that I was at last obliged to desire him to be silent. In order to make the natives acquainted with the taste of the various roots, I had brought some of each boiled; they liked every one of them, particularly the potatoes, of which I left them a large supply. I delighted in the idea that these good-natured people might one day be indebted to me for their prosperity; that, when these islands should once abundantly supply their inhabitants with potatoes, yams, and taro, the cruel practice of destroying their children would cease, and perhaps their wars, (which, for the most part, are undertaken from scarcity of food,) would become less frequent. Some water-melons, which I had still left, were so much relished by them, that they wanted some of the seeds, which I gave them with pleasure; and Lagediack immediately resolved to raise a garden upon pillars, to secure it against the depredations of the rats. Three cats and five goats were also landed, and placed under the care of Lagediack. The cats in particular excited the admiration of the assembled natives, when, immediately on being put on land, they caught some rats, which, unacquainted with their danger, ran under their paws. Besides these, I made Lagediack a present of two hens and a cock. I remained on-shore, during the night, with Mr. Chamisso and Kadu. In the evening, when we had finished the garden, we sat down on the turf, surrounded by the natives, who tried to amuse us with drumming and singing. During our absence they had composed songs in honor of us, which they now sang; that on Totabu made the beginning, then followed Timaro, Tamisso, &c. During supper, Kadu explained to them the use of the various utensils, and probably spoke very wittily on the subject, for they laughed immoderately. During the nine months he had been with us, his mind had been improved in such a degree that he could not help feeling his superi-

ority; still he liked the company of his old associates, instructed them kindly, made presents to their children, and in many other instances endeared himself to them. Although very proud of his European dress, he immediately took them off, particularly his shoes and boots, to which they were most averse; his treasures he had soon divided among them. Lagediack sat by my side, and ate his supper with an excellent appetite. A plate with boiled yams and potatoes went round among the spectators, who took them out with their long nails. Kadu exhorted them to take care of the roots which we had laid in the ground, if they wished to have some in future; he felt much amused when one of the natives shewed him a boiled yam, saying that he would not eat it, but plant it the next day. He thought the Radackans were yet rather stupid. They liked the pork, but, on a glass of wine being sent round, they only touched it with their lips. Kadu called them fools, who did not know what was good, and invited them to follow his example, as that of an experienced man, on which he emptied his glass in one draught. After supper they again sang and beat their drums; and, when Kadu began dancing in the European manner, he excited great laughter, and Lagediack said that our dances made it appear as if we had lost our senses. I asked the latter afterwards whether he knew the chain of Ralick, as he had never told me of it; to which he answered that he had been there frequently. I again perceived how difficult it is to obtain such information from savages, without perfectly understanding their language. They never give any information on their own accord, but merely answer questions, supposing that, being so superior to them in intellect, we know every thing without their assistance. Lagediack told me that, on sailing from Eregup to the S.W. I should meet with the cluster Odja, (not Otdia,) which in size, as well as in population, he said, surpassed all the others. A tradition says, that a long time back a ship had been in Odja, where she left much iron. I spent an uncomfortable night: on account of the heat, I could not cover myself; and the rats and lizards were amusing themselves upon my body.

On the 2d we were visited by the old chief of Ormed, who was as pleased as a child on seeing us again, and made us bitter reproaches for not having anchored near his island, as he was now the chief of the whole group; the kind-hearted old man, as generous as ever, notwithstanding the scarcity occasioned by Lamary, brought me bread-fruit and cocoa-nuts. Kadu had formerly resided a long time in Ormed, where he had experienced many paternal kindnesses from the old chief; and their joy on seeing each other again was truly moving. He accom-

panied the old chief to Ormeä, together with Mr. Chamisso, where they intended to sow several seeds, and stay for the night. In the afternoon I nailed a plate of copper (with the date and name of our ship engraved upon it,) on a cocoa-nut tree, opposite to Lagediack's dwelling. He promised to take care of this memorial, but he could not comprehend how we could sail away with the Rurick while her name was nailed to the tree.

On the 3d Mr. Chamisso returned with Kadu, and I was disagreeably surprised by the intelligence, that the latter intended to remain here, having but the day before solemnly declared that he would follow us. The cause of this sudden change was, the account he had received of his little son, in Aur, being very desirous of seeing him, running daily about the wood, seeking him, and having no rest on account of his absence. This intelligence touched his paternal heart; but yet he seemed irresolute, when he related the circumstance to me in great emotion. When he found that I too, although reluctantly, approved of his plan, he resolved to carry it into execution, and promised to take care of our plants, which he called after our names; future navigators, therefore, instead of yams, taro, and potatoes, will find here *timaros*, *tamissos*, and *totabus*. Every one on-board wished to hear from his own mouth whether he would actually leave us, and he repeated to every one how his son was calling Kadu! in the woods, and had no sleep at night. I felt it painful to separate myself from him, and, as we intended to sail the next day, every one on-board collected presents for him. He looked at his treasures with silent astonishment, and seemed to be afraid that the Radackans would rob him; I myself did not doubt but that Lamary would take away the greater part of it, and therefore left several considerable presents for him; nor were the old chief of Ormed and Lagediack forgotten. Kadu having taken a tender farewell of all on-board, Mr. Chamisso and I went on-shore with him, taking, at the same time, some pigs and dogs, which were to remain under his care. His treasures were taken to Rarick's dwelling, where he concealed them, while the natives, who contemplated them with great delight, were probably plotting how to deprive him of them. In order to protect him as much as possible, I wished to address the savages: Lagediack immediately dispatched two criers, who ran through the island to announce his orders to assemble; drums were beaten, and the whole of the population soon collected. They were informed that Kadu was to stay on the island, and that I wished to communicate with them on the subject; the people formed a circle round me and Mr. Chamisso in great expectation. In the mean time Kadu dressed himself in Rarick's house, probably in order to make a strong

impression upon the natives on this solemn occasion. After some time he proceeded, with regular strides, out of the house; he had put on a white shirt, over which was buckled a sword and belt; he wore a straw hat, and carried his drawn sword in his hand. The natives were amazed when he entered the circle, with a serious countenance and the murderous weapon, and gravely sat down on the trunk of a tree. It was now dusk, and Kadu delivered the following speech, which we had taught him. I must, however, observe, that Kadu, from what he had heard of us, had formed a very great idea of the "*Tamon Russia*," of whom he had spoken very highly to the natives. "The great tamon of all tamons," said he, "of the country of Russia, has commanded Kadu to stay here and take care of the plants and animals which the Russians have left. In this occupation no one is to molest him, under pain of death; but the inhabitants are to assist him in cultivating the ground, for which they are to be recompensed, although the promised reward would spring from the labour itself." (For the purpose of giving more importance to the speech, I supplied the following falsehoods:) "In ten months hence a large Russian ship will come here to bring the natives iron and other necessary articles; but, if it is found that the plantations have been destroyed, the depredators will be put to death. No one shall attempt to rob Kadu or do him any injury, a crime, which is also to be punished with death." In conclusion, a reward was promised to those who should bring any of the newly-cultivated vegetables to the ship expected from Russia. Kadu delivered his speech with great dignity; the islanders promised punctually to fulfil our commands, and I had, in order to make them perceive the full extent of my power, left orders on-board to fire, upon a signal, two guns, and throw up a rocket. It was now quite dark, I bade the islanders look at the ship, in order to see the fire with which we might destroy them, in case of disobedience; the signal was given, the guns roared, and the poor savages were panic-struck; the rocket, however, which was hissing through the air, and illuminated all the island, inspired them with still greater fear: Lagediack embraced me with both hands, and begged me to put a stop to this frightful scene; Kadu was much pleased with the impression that had been made, and now thought himself secure against any depredation. Some presents which I made to the natives restored their confidence; we gave Kadu two copper medals, with the emperor's portrait, one of which he was to wear himself, and to give the other, in my name, to Lamary. He resolved to bury some of his property, and to go with the remainder to his old friend in Ormed. When we parted, Kadu wept like a child, and earnestly entreated us to

come back again; the lamentations of the natives at our departure were general. Lagediack kept close by my side, and frequently asked whether we should certainly come back? Men, women, and children, accompanied us to the boat; Kadu led the van with a drawn sword, and burning splinters, with which they lighted the way, gave a solemn appearance to the procession. After we had pushed from shore, they all sat down upon it and sang a song, in which our names were frequently mentioned.

On the 7th, at day-break, we weighed anchor, and left this cluster of islands, with the consciousness of having done much good. We recognized, through the glass, Kadu, in his white shirt, sitting with some others before Rarick's house, and waving his handkerchief to us as long as we could distinguish him. We steered N.W. by W. ½ W., in order to discover the cluster Ligiep, which, according to the account of the natives, lay in that direction. We advanced but slowly, owing to the weakness of the wind, and on the 8th, at seven o'clock A.M., we discovered the cluster, consisting of a number of small low islands. At noon they lay three miles and a half from us, in the N.W. 65°, and here we were entirely becalmed; the ship no longer obeyed the helm, and a strong current setting from the west drove us towards the land. Our ship was scarcely a mile from the breakers, and we were just about to lower the boats to tow her back, when a slight northerly breeze came to our assistance. The cluster of islands was smaller than the others, but otherwise entirely like them. Its greatest extent from N.E. 45° to S.W. 225° was fourteen miles and a half. We saw a boat, manned with ten persons, under sail, coming through a passage between the reefs straight towards us; when the wind failed, they took to their oars, and soon came within thirty fathoms of our ship, where they stopped. When we addressed them in their language they seemed astonished, spoke vehemently among each other, and then made quickly towards the ship, asking where we came from? From Otdia, said I. From Otdia! from Otdia! repeated they with surprise, and at last asked whether the taniou Totabu was on-board? On my introducing myself as the same, they lost all fear, tied their canoe to the ship, and quickly climbed upon deck. Lamary, who had lately been here, told them about us, and must have given a very favourable account, to have produced such implicit confidence. The Ligiepans were tall, strong, well-made people, in which they were advantageously distinguished from the rest of the Radackans. They chiefly live upon fish, which may be the cause of their being so much stronger. Our guests had put on their best dresses, as they were perfectly new; their hair was rubbed with cocoa-nut oil, neatly tied, ornamented with strings of shells and

feathers, and, upon the whole, they seemed wealthier and more cheerful than the people of Radack. On reaching the deck, they first made us presents. A tamoo, who was very much tattooed, laid some cocoa-nuts at my feet, and placed his string of shells on my head; the rest did the same to the other gentlemen, and, after a little time, they were perfectly familiar with us. The greatest object of their curiosity, as in the other islands, was the iron; but they also inquired after Kadu, and wished to know whether we had brought him back again. We made them some presents; they seemed astonished at our liberality, and, to show their gratitude, they invited us to visit them on-shore, where the handsomest *ridginis* (women) were to receive us. They pointed out a passage on the western part of the cluster, which they thought would be wide enough for our ship; but, having no intention of visiting Ligiep, I preferred questioning them respecting the chain of Ralick. Both the chain and the islands of Kwadelen they pointed out as situated towards the west, and, having received the same direction last year from the chief of Ailu, I had no doubt but that I should find the latter cluster of islands. After the islanders had stayed with us for about an hour, a brisk breeze sprang up, with which I wished to sail along the cluster towards the west, which made them leave us. At sun-set we had doubled the western part of the cluster, and then continued our course to the west, in hopes of discovering the chain of Ralick. We found the latitude of the central part of Ligiep 9° 51′ 30″ N.; longitude, by the chronometers, 120° 46′ 30″ W.; variation of the needle 10° 50′ east. I named the cluster after our worthy captain, Commodore Count *Hayden*. We continued our course to the west the whole night; it rained, and violent puffs of wind frequently compelled us to take in the sails.

On the 6th, we in vain looked out the whole day for land. Our observations at noon gave 9° 42′ 56″ lat., and 191° 56′ 40″ long.; thus we had kept a straight line from Ligiep, and probably had cut through the chain without observing it, a very possible circumstance with such low land. When the sun had set, without having discovered land, I gave up the search of the chain, which would have taken up too much of my time. I wanted the northern monsoon in the Chinese Sea, to reach Manilla, where the ship was to be repaired, and the same monsoon had to bring us through the Strait of Sunda. For fear that there might be other islands in this unnavigated sea besides Ralick, I came-to during the night, and continued our course, throughout the 7th, towards the west, without seeing any land. The current had carried the ship, in twenty-four hours, eighteen miles west.

On the 9th, the observed latitude being 9° 32′ 54″, longitude, by the chronometers, 197° 22′ 24″, we sailed over the spot where the isle *Casbobus* and the thirty-six islands of the Spaniards are usually placed, without discovering the least sign of land. I still continued my course to the west, in hopes either of meeting with the Isle of Hogelon or of making some other discovery, as these seas, I suspect, have not yet been explored by any navigator. The water had for some days past assumed a blueish colour, and had been since 0,01 hundredth more salt than usual. During the night we had a thunder-storm, with rain, and puffs of wind.

On the 11th, lat. 9° 19′ 56″, long. by the chronometers, 201° 25′, we were on the spot where Hogelon Island is said to be, but we looked in vain for it, and I venture to affirm that it does not exist. On the 11th and the 12th, several distances between the sun and moon were taken, and the longitude calculated from them perfectly agreed with that of the chronometers.

On the 13th, at noon, we found the latitude 8° 59′, longitude, by the chronometers, 204° 24′. The water still retained its unusual blue colour; I suppose that the sea from the chain of Ralick to this spot, and perhaps still farther west, is of a less depth than it is east of Radack. Six's thermometer marked the temperature of the water in the depth of the sea much colder than on the other side of Radack, as well as in all the parts of the tropics, situated under the same latitude as this.

Observations.

Temperature of the air	85°	0
sea at the surface	87	0
in 100 fathoms	56	2

Transparency of the water 15 fathoms.

Having been annoyed by calms for some days, I took my course more north, in order to reach the region of the fresh trade-wind.

On the 14th, latitude, at noon, 9° 21′, longitude, by the chronometers, 204° 44′, the calm allowed us to make the following observations:

Temperature of the air	84°	0
sea at the surface	83	0
in 25 fathoms	77	0

On the 15th we were still in a calm; the latitude at noon was 9° 25′ 48″, and the longitude, by the chronometers, 205° 00′ 45″. We hooked a shark, in the body of which was found a seal-skin cap, lined with cloth, which, a few days before, one of the sailors had thrown overboard to liberate himself from the sport of his companions. This cap, which had nearly the same fate as Casem's slipper, was rendered exceedingly heavy by the

grease and tar with which it was covered; nevertheless the owner declared that he would now wear it in spite of all their ridicule, and continued to do so, till one day, being at the top of the mast, it fell off his head, happily only striking the back of another man, whom, in falling from such a height, it might have killed, if it had fallen on his head; it was then thrown over-board again.

Observations.

Temperature of the air	85°	70
water, at the surface	87	40
in 15 fathoms depth	79	00
50	59	00
69	51	40
101	49	50

I observed the transparency of the water with a white plate, and found that it was visible at a depth of twenty-seven fathoms; the former observations had been made with a piece of red cloth.

On the 20th, coming into 10° 42′, lat. and 209° 51′ long. by the chronometers, I saw a sudden change in the colour of the water, which now was again of a dark blue; the thermometer also marked the temperature in the depth much warmer, which confirmed my opinion respecting the difference of the depth of the sea. It is therefore possible that the ocean from the Philipines to Radack forms a step.

The temperature to-day in 86 fathoms was	63°	00
On the 15th in 69 fathoms, it was	51	40

Thus the temperature of the sea in 86 fathoms was 10° warmer than on the 15th in 69, whilst by the ordinary rules it ought to have been colder. We also found the water by 0,01 hundredth less salt.

On the 23d, at half-past nine o'clock A.M. we saw from the deck the southern part of the isle of Nota or Sarpane, in N.W. 68°; the northern part of it is very low, but even the other was scarcely visible, although only at a distance of nineteen miles. At three-quarters past ten o'clock we got sight of Guaham Island, in W.S.W., at a distance of twelve miles. Sarpane may be a little higher than Guaham; the former I suppose to be about 3 or 400 toises high; at the western part of its southern point is a small low island. The lat. of this point we found 14° 00′ 58″, long. by the chronometers, 214° 39′ 46″. I steered my course through the middle of the strait formed by the two islands, without thinking it in any way dangerous. But I afterwards understood that in the middle of it, rather more towards Sarpane is a shoal that lies only three fathoms under water, and which appears in no chart. The Spaniards in Guaham said that, in stormy weather, the surf may be seen

rising on this bank. Sarpane presents to the eye nothing but naked rocks; Guaham, however, which we approached towards four o'clock P.M. is a beautiful spot. There is no correct map of this island; the town of Agadna I knew by description, but it was now too late to seek it, and therefore I stood out to sea for the night.

On the 24th, at day-break, I again approached the island, the south coast of which I followed towards the west, till we discovered the town of Agadna. The northern part of this island rises perpendicularly from the sea, to a moderate height, and extends in a straight line towards the south; the upper part of which is covered by a beautiful forest. At eleven o'clock we had doubled the north point, and were under the wind of the island, where the monsoon, kept off by the high land, turns almost into a calm. Gentle winds, which now and then came from the island, brought us the most delightful perfumes from it. At a distance of half a mile in the east, we had a cape, called by the natives *Tuloberspit*, from which the land keeps nearly a straight direction. The outer point of this cape is distinguishable by a cylindrical rock, rising perpendicularly from the sea. From this point the land forms a deep bay, divided into several small creeks, and here nature is truely delightful. We looked in vain for a canoe, and any human being on the shore; this land, once the abode of a happy nation, now seems to be almost uninhabited; for, since the introduction of Christianity, which in this place has not shewn its benign effects, the race of the Ladrones has been nearly extinguished. I wished to cast anchor within a quarter of a mile of Tuloberspit, but was prevented by the great depth and coral bottom. We now perceived a man on-shore, who was quite naked, and seemed to be of a black colour; but at the sight of the ship he ran into the forest. Soon after this we descried a large boat, which made towards us. It brought a young Englishman, named Robert Wilson, who performed the office of pilot in Agadna, and whom the governor had sent out to bring us into port. We soon saw the town of Agadna lying at the foot of a hill, forming a cape, (here called Devil's cape,) at the top of which is a fort, in which we could distinguish a small white house. Wilson told us that since Malespina had lain in Utamack bay, a new harbour had been found, where ships now find a secure anchorage. At twelve o'clock, a boat came along-side with a lieutenant, dispatched by the governor, to inquire to what nation we belonged, as they did not know our flag. He was much surprised, when he was informed of it; he behaved very politely, and left us, after having taken down my name and that of the ship. The boat

which carried the officer was very much like the canoes of Radack,—the sails, the construction, the method of managing it, and even the people in it being dark and naked, reminded us of Radack. Wilson told us, that there are several of these canoes here, which are bought of the natives of the Carolines, on account of their being made to sail quickly, and within few points of the wind. For some time past, notwithstanding the great distance, a small flotilla has annually come to Guaham, from the Carolines, to exchange shells, coral, and other trifles for iron. Kadu had often told me of Tautua, chief of Ulie, who sailed to Wagal, in order to purchase iron (called by the Carolinians, *lulu*). We now no longer doubted of the truth of Kadu's report; his Wagal was no other than Guaham, for Tautua's name was yet well remembered here. A long, narrow neck of land, named Orot, at the west point of the island, forms the entrance to the new harbour. The whole appearance is like that of Hana-rura in Wahu, and formed by coral-reefs. A small, low, well-wooded island, named Appapa, protects the harbour against the north; from this spot a coral-reef runs westward, and the external point of which, together with the cape St. Carlos de Orte, forms the entrance of the harbour, which is one mile and a quarter broad; but, as it has a dangerous bank in the middle, ships of large burden will do best to keep south of the bank, as near St. Carlos de Orte as possible, where the water is deep enough for any ship. We sailed through the northern passage, which is only five fathoms and a half deep, with a coral bottom, and came to a basin of perfectly smooth water; but, the depth being great, and the bottom rough, ships generally anchor in the inner harbour, which is one of the safest in the world. The wind being in the east, we tacked to the inner harbour, through the coral-banks, with the nature of which we had become acquainted in Radack, to the great terror of Wilson, who solemnly protested against so bold an undertaking. The entrance being very narrow, we set to work to warp the ship in, and at five o'clock P.M. we were in the middle of the harbour La Caldera de Apra. Here we found a messenger of the governor of Agadna, who, in a very polite letter, invited me and all our gentlemen to come to town; and, in the village of Piti, opposite the island of Appapa, mules were kept waiting to convey us there. Leaving the charge of coming to anchor near the fort of St. Cruz, which lies on a small island in the harbour, to my lieutenant, I went on-shore with our gentlemen and Mr. Wilson. We had to row one mile and three-quarters, winding through many shallows, to Piti, saw a two-master, belonging to the governor, at anchor, and no other ship in the harbour. Wilson, the steers-

man of the ship, told me that some years often passed without a vessel entering here. The sun was setting when we landed; and we found the mules, together with the only horse on the island for myself, in the neighbouring village Massu. Agadna is three miles and a half from hence, and we rode off immediately, through a paradisiacal country, whose odoriferous air had the most grateful and beneficial effects on us: indeed, the Spaniards told us, that the climate was very salubrious, and people on the island lived to a very great age.

The village Massu consists of fifteen houses, built in one line, with gardens between them. These dwellings or boxes, hanging over a space of eight or ten square feet, are raised five feet above the ground, and supported by four pillars; the floors and walls are formed of bamboos, placed so far apart that a hand may every where be passed through, giving to the whole habitation the appearance of a cage, which need not to be entered to see what occurs inside. This construction is well adapted to the hot climate, as it allows a free current of air to cool and refresh the inmates; the thatched roof protects them against the rain, and the pillars against the reptiles; but the sight is particularly ludicrous when the family is within. The half-naked inhabitants of Massu kindly addressed us in the Spanish language; a large stone cross outside of the village, and a small one about their necks, shewed that they professed the Christian faith. The inhabitants of the island are called *los Indios*, by the Spaniards; they are all Christians, and partly descended from the natives, but chiefly from the people of Mexico and the Philippines, which were transplanted here by the Spaniards, after the extinction of the true aborigines. After having passed through two other villages, we alighted at eight o'clock before Mr. Wilson's house in Agadna. Here we adjusted our dress, and then waited upon the governor, Don Joseph Medinilla y Pineda, captain-general of the Marians or Ladrones, who received us in his uniform, with the utmost politeness. He promised to supply us with every thing the season afforded, only regretting that the season for fruit, which is very abundant, was over on this island; and immediately gave orders to the same effect. This gentleman is the only real Spaniard on the island, all the officers, and even the clergy, being natives of Mexico or Manilla, and descended from Spanish parents. He is a very agreeable companion, and probably also a useful officer, his governorship having been renewed for him, contrary to the Spanish system, by which a governor is never left above three years in the same colony. Mr. Wilson was the interpreter between us; I tried in vain to turn the conversation to the Marians, but the governor, like all

other Spanish governors in this part of the world, was very close on the subject, and always eluded me. His hospitality, however, was unlimited; after we had been served several times with tea and chocolate, we were led to a table covered with fruit, pastry, and the most exquisite wines: thinking this was the supper, we ate heartily; but an hour had scarcely elapsed before we were taken to the dining-room, where a most plentiful supper was prepared for us. We at first hesitated, whether it was the custom here to eat without intermission, or whether they only expected such excellent digestion from a Russian stomach, but we soon perceived that they also ate with good appetite. During supper I was introduced to the vice-governor, Don Louis de Torres; he had frequently visited the Carolines, especially the cluster Ulle, and promised to give us the observations that he had made there, in writing, a circumstance which induced me to prolong my stay on this island.

When, in 1788, the Carolineans visited Guaham with several small canoes, de Torres was here. They were well treated by him and the governor, who made them large presents, from which they were emboldened to return every year. They said that they had always been trading with the inhabitants of this island, and only left off when the white people settled here, whose cruelty they themselves had witnessed. In 1788 they made this voyage again, after a long interval, to purchase iron. They further said, that the description of the rout from Ulle to Guaham, a distance of 300 miles, was recorded in songs, after which, and the position of the stars, their pilots found their way. In 1789 they again came to Guaham; but, on their return homewards, they were overtaken by a violent storm, which buried them all in the waves, since which time de Torres waited in vain fifteen years for the return of these people, whom he loved, for their amiable disposition. In 1804 de Torres undertook a voyage to the Carolines, for the purpose of seeing his old friends, on-board the Maria of Boston, Capt. Ball, who, having taken in provision in Guaham, was sailing, with his super-cargo, Borman, for these islands. Their intention was to collect *Biches de mer*, a species of large snails, without shell, which are much sought after in the Chinese market. The first cluster they touched upon was Ulle, where de Torres met with some of his old friends, who assisted them in bringing the Maria inside the cluster, and this was the ship which Kadu had mentioned to us; the name of Borman, of which they had made Marmol, and of Lewis, as they called M. de Torres, were mentioned in some of his songs, which his countrymen had composed for the purpose of perpetuating their memory. Thus the Radackans and Carolineans have the same custom of record-

ing memorable events in songs; I am not, however, aware whether the former also make songs on their heroes, as the latter are said to do. The reason for their absenting themselves from Guaham so many years, was that, because their flotilla did not return, they imagined that all their companions had been murdered there. De Torres convinced them of their error, and they promised to come again the next year, which they did. Since that period eighteen canoes annually collect near the cluster Lamureck, from whence they take their rout to Fojo, a desart island north of Lamureck, which they reach in two days, and rest there; and in three days more reach Guaham; the whole voyage being performed in five days. They visit Guaham in April, and return in May, or, at the latest, in June, as they afterwards have to fear the violence of the S.W. monsoon. Their boats are easily upset for want of precaution, which on their voyages frequently happens twice a day; but, as they are expert swimmers and divers, it produces no other consequence but that of making them laugh heartily; they then jump into the water, turn the boat up again, and swim by the side of it, till they have thrown all the water out of it with their hands. It is rather worse, when they break the balancier, without which they cannot keep their canoes steady; however, they never undertake a voyage without meeting with such an accident, in which case they effect the repairs, which require several hours, swimming. They are often a fortnight on sea, constantly washed by the waves, without any other food than a few cocoa-nuts, as their canoes do not carry a heavy load; sea-water is their beverage. Their fleets are generally under the direction of two pilots, who are only of a low condition, but are far superior to the chiefs in knowledge, and are frequently promoted for their merit.

Some years ago, one of their fleets, being but a day's sail from Guaham, was overtaken by a violent storm, and beaten out of its track. When the storm ceased, the two pilots differed in their opinions; the one maintaining that Guaham must still be to the west of them, while the other supposed it to lie in the east. The fleet at last divided in two parties: those that sailed in the west were never again heard of; the others, after several days' labour, to gain the easterly wind, safely reached the island, and the pilot was created a *tamon*.

When the Spaniards took possession of the Marians, most of the natives fled to the Carolines. The present governor, who takes great pains to gain the confidence of the Carolineans, has proposed to them to settle on Guaham.

The governor not having room in his house, only Mr. Chamisso and I slept there; the other gentlemen met with a kind reception

by the officers of the town. The governor's house is two stories high, and quite adapted to the climate; the interior is lofty and roomy, the wall to the north containing roll-frames, which are only shut when the sun shines in; these frames are filled up with the shells of the pearl-oyster, instead of glass, which admit the light, and exclude the hot rays of the sun; the wall towards the south is without windows. Our beds were good, yet, had we not been tired by our ride, we should have been disturbed by the constant quarrels between the dogs and cats, the latter often taking refuge upon our beds. All houses here are annoyed by a species of small green lizzards, which, at night, run about the walls, whistling, and sometimes even get into the bed. Dogs and cats are very numerous both in town and country, and are much encouraged, on account of the rats, which are every where very troublesome. The dogs are used to hunt a small species of stags, which the Spaniards have brought here from the Philippines.

Nov. 25th. We were scarcely awake when the governor invited us to drink chocolate, and we were not permitted to go out and see the town, till we had taken another breakfast, resembling a dinner.

The town of Agadna, which is little more than a small village, lies in a delightful valley, a few hundred yards from shore. A small stream which runs through the place supplies the inhabitants with water; the houses, which are of the same architecture as in the village, form a regular street. There are only seven or eight houses, built of coral-stone, which belong to government, and are inhabited by the governor and other officers. At the east end of the town is a capacious church and a convent: the whole of the clergy consists of two monks, who are natives of Manilla, and are descended from the Malays. It is said here, that after regular periods of about 20 years, a violent storm arises from S.W. which swells the sea to such a height that the water inundates the whole town, and compels the inhabitants to take refuge among the hills. Only the stone houses resist the fury of the water, the bamboo cages being all destroyed. The town is defended by two forts, built of coral-stone; the one lies before it, on the sea-shore, but, as yet, has no guns; the other, situated on an eminence in the west of the town, seems to have been chiefly built for the purpose of quelling any insurrection that might take place; but, as the governor told me they are without powder on the island, both the forts seem to be useless. The town consists of two hundred houses, and contains 1500 inhabitants. There is but one married couple remaining of the aborigines, and at their death the race of the Ladrones will be extinct. The military consists of the militia, and seemed

to be in good order; the officers are natives. The men, who are obliged to provide their own clothing, had a good appearance, although a part of their small pay yet goes to the priests. If an inhabitant wishes to be married, he must give a Spanish dollar to the monk, who pays no regard to the scarcity of money which is felt here. The governor showed me some canoes that had been bought of the Carolineans, and told me of some of the feats of these people in swimming and diving. A gallion, loaded with specie, some time ago suffered shipwreck near the new harbour, when some of the Carolineans, who were here, fetched the barrels, filled with piastres from the cabin of the ship, which lay several fathoms under water; and it was even affirmed that they had remained half an hour in it.

The whole chain of the Marians is uninhabited, with the exception of Guaham; the North Americans, who are carrying on the fur trade between the N.W. coast of America and Canton, chose the islands Agrian and Saypan as resting places on this voyage. In order to find fresh provisions there, they took some families from the Sandwich Islands, whom they compelled to attend to the cultivation of the soil and breeding of cattle; and they had actually succeeded in their subsequent voyages in supplying themselves with fresh provisions without expense. The Spaniards being informed of it, soldiers were sent there, who destroyed the plantations, and carried away the poor Sandwichans, who seemed to be very comfortable in the governor's house, where I saw them, and who were pleased when I gave them some news from their country. The governor was informed that the Americans had formed another settlement at Agrian, which probably will not be suffered to exist long.

In the afternoon I parted from the governor, to return on-board. In the villages where we stopped, the inhabitants readily refreshed us with a pleasant beverage, obtained from cocoa-nut blossoms. These people have been too long subdued to show anything in their behaviour but submission. They are entirely dependant on the governor, and, although government demands no taxes from them, they are but poor. The present governor treats them with great lenity; but his predecessor was a tyrant, and they still seem to fear a relapse.

Men, women, and children, are constantly in the habit of smoking segars; at the same time, they chew betel, which dies their teeth and lips a disgusting red. In all the Spanish possessions, government monopolizes the right of cultivating tobacco, except in Guaham, where every one has the privilege.

The natives having observed that some of our sailors wore no crosses round their necks, they were denounced by them as bad christians. Lieut. Schischmareff, during my absence, be-

gan making our provision of water on a convenient spot. In this operation, however, the following precautions are to be observed:—the boats must enter the river during high water, when the casks are immediately unloaded and floated up. They must not be filled till the ebb has carried off the salt water: on the return of the flood the boats are loaded, and leave the river again on the highest stand of the water. On the coast, where the water is taken, the bushes hang down into the sea, from which new roots spring up, which unite with the upper branches, and form together a green fence that covers the whole bank.

On the 25th, we paid a visit to the commandant of the fort Orta, at the entrance of the harbour. At the same time, the men were allowed to go on-shore, where they gathered as many oranges as they could carry. They saw in the wood, a stag, and several lizards, five feet long. Besides cats and dogs, stags are the only quadrupeds on the island; poisonous insects and serpents there are none.

On the 27th we again visited the governor. We found a great number of the natives in the town, who, there being no national dance here, performed a kind of ballet—the Reception of Cortes by Montezuma.

The 28th, our ship was well supplied with provisions, among which we had a live ox. We spent a very comfortable evening in company of the Spanish officers; and, on the morning, after having taken a grateful leave of them and the governor, who had purposely come down to the port, we heaved anchor, and at eight o'clock A.M. were out of the harbour.

We found the latitude of the harbour la

Calderona de Apra	13°	26′	41″	
Longitude	215	9	54	
Variation of the needle	5	34		E.
According to Marion's observation, the harbour lies in the longitude	216	10	00	
According to Malespina, Umatak-bay lies	215	26	00	

As the difference between Umatak-bay and the harbour of la Calderona de Apra can only be trifling, my longitude tolerably agrees with that of Malespina.

From Guaham to St. Helena.—Dec. 1st, lat. 16° 31, long. 219° 6′. We saw a great number of sea-birds. Arrowsmith's chart gives in this latitude a sand-bank, which is said to have also been seen by Spanish navigators.

On the 9th, we saw Barlington's rock, seven miles due south of us; we found its long. by the chronometers, 237° 15′ 30″, the latitude, 19° 58′ 5″. We now entered the Chinese sea, and immediately perceived the change of climate; instead of the almost ever-bright sky, stormy clouds are in this region, con-

stantly tossed about by the wind, and the horizon is obscured by a permanent mist. The current had carried us to-day eighteen miles to S.E. 18°.

On the 10th, at noon, we were in 9° 12', lat. and 239° 43', long.; since yesterday the current had carried us twenty-six miles and a quarter to N.E. 3°. The wind blew high from E. by N. On the 11th the wind was lower, the current thirty-four miles and a half to N.E. 14°.

During the night of the 12th we doubled cape Bolinao. On the 14th, at noon, we doubled cape Capones, and now tried to reach Manilla-bay by tacking, as the wind, in this season, always blows from the bay.

On the 15th, being near Corregidor Island, we saw several telegraphs announcing our approach. At sun-set, while we were tacking between Cavalo Island and the main-land, at the entrance of the bay, we were stopped by a large boat with twenty oars, called here, *pango*; a Spanish officer came on-board, and, with great politeness, put the usual questions to us. Several of these watch-boats are stationed near the above island, chiefly for the purpose of preventing the Moors of the southern Philippines from entering the bay, as they frequently come here, plundering, murdering, and carrying away prisoners, whom they sell for slaves among themselves. The officer gave us a pilot to steer us into the bay; but he knew but little of his business. The chart of Manilla-bay, that I had by me, I found very defective, and was therefore obliged to be guided by my own knowledge of the bay, which I had collected from other sources. The St. Nicholas-shoal is the most dangerous spot, but with a little precaution may be easily avoided: we gained very little through the night; ships ought not to go so far to the north, as to get in sight of the north entrance, since, in that place, the current, which during the present season runs out very strongly, will be against them; which is the reason why ships during the N.E. monsoon can only enter through the southern passage, and leave by the northern.

On the 16th, we were still near Corregidor Island, on which we perceived a crater; probably there was formerly a volcano in this place, which, by its fall, formed several small islands and a basin.

On the 17th, at noon, having been compelled by a calm to anchor within eight miles of the city, we were met by two officers in a pango of sixteen oars, who welcomed us in the name of the governor. In company with Mr. Chamisso, who speaks the Spanish language, I went with the officers to the city, in order to ask the governor's permission to sail to Cavite,

where I wished to put the Rurick under repair. It was four o'clock when we reached the road, which, in this season, is very secure, and where eight merchantmen, under British and American colours, rode at anchor. Manilla lies on a plain, and presents, on the sea-side, a stone fortification, lined with cannon, over which the roofs of the houses and some steeples are rising. In order to land, we rowed up the river, deep enough even for large ships, but the mouth is shallow, over which the depth in full and new moon is not above fourteen feet. The river here divides in several branches, two of which, whose banks are covered with villages, run into the famous lake Bahia, which lies twenty miles inland. A large number of fishing-boats, manned with Chinese and Malays, were engaged upon the shallows: our attention was peculiarly attracted by some ferrics that were standing there, from which, by simple machinery, a large net was thrown out by two people, and drawn back again in a few minutes full of small fish. When we had entered the river, we saw the city, on its right bank, surrounded by a well-constructed wall; on the left, lay a large village, inhabited by Malays, which, like at Guaham, was formed like bamboo cages. After we had landed in a fine valley, we walked in the town, between high houses, through several dirty streets, to the governor's house; Don Fernando Mariana Fulgeras, from whom we met with a very friendly reception, immediately granted the permission to sail to Cavite, whither he sent his orders respecting the repairs of the ship. At the same time he invited me to visit him frequently, and offered his assistance to Mr. Chamisso, if he would take a trip into the interior. An elegant carriage, with four horses, took us back to the pango, and I reached the Rurick at seven o'clock P.M. A gentle breeze having sprung up, we heaved anchor, and tacked through the night, in order to gain Cavite, which lies twenty-one miles from Manilla.

On the 18th we reached Cavite, where two merchantmen rode at anchor. The port captain, Mr. Tobias, on being informed of our arrival, immediately sent two boats, by the aid of which the Rurick was brought into the arsenal. Here she was immediately unrigged and unloaded, her contents being placed in an empty gallion, standing close by, in which, also, the sailors found comfortable quarters, while we had a house assigned to us in the town. Mr. Tobias accompanied me, with a shipwright, to the Rurick, and all the preparation for the repairs were then begun. Every thing, even to the water-casks, had become unserviceable during our long voyage. On keel-hawling the ship, she was found to be worm-eaten in some places, and the copper to be much damaged; therefore the governor

ordered her to be newly lined with copper. So small a ship as our Rurick has the disadvantage that the most necessary articles cannot be taken with her, and the assistance of others must be often dearly purchased. Mr. Tobias set a hundred people to work, and to his activity we are indebted for our being ready in time, notwithstanding the number at work. In the mean time I occupied myself with trying the chronometers, and copying the charts which we had made. Cavite, which is only inhabited by soldiers and labouring Malays, is a fortress, and by no means a pleasant place of residence; it is a long walk before you reach a village, the houses of which, two stories high, are built in the Chinese and Malayan style. Hither I went every evening to amuse myself with the sight of the well-lighted market, which is always held after sun-set. Hundreds of women are sitting on the ground in long rows, where they sell various kinds of eatables, fruit, &c., and the labourers from the fortress and the soldiers come here for their supper. The crowd is great, and the musical natives, who are hardly ever without their guitars, spend the evening in playing, dancing, and walking in the open air. Three miles from hence is the beautiful town Terra Alta, where several rich Spaniards have their country-seats, the air being considered very salubrious.

The 24th, being Christmas-eve, set the whole town of Cavite in motion; monks, with their holy images, paraded the streets, followed by the Malays in procession, and the children ran behind with lanthorns, in the shape of various beasts. Delightful music was occasionally heard, the sounds of which, however, were soon drowned by the noise of fire-works and rockets. During this night no one in Cavite goes to rest; at twelve o'clock all the bells are rung, and the people crowd to the church for prayer.

On the 25th we went to Manilla, in Mr. Tobias' sailing-boat, and were received by the governor's aid-de-camp, there being no inn in the city. The governor immediately sent us two carriages, in which we visited the beautiful country about the place, where we found a crowd of richly-dressed ladies and gentlemen promenading the favourite walks, and riding in carriages. In the forenoon we visited the beautiful environs, chiefly inhabited by wealthy Chinese, who fully understand how to cheat Christians. We dined with the governor. The higher classes only begin to stir in the evening; till then, the time is spent in sleeping, eating, and smoking, which latter is no-where carried to such excess as on the isle of Luconia, as children smoke their segars before they can walk. The women, not satisfied with the common segars of a small size, have some made for themselves of about twelve inches long, and a proportionate

thickness, and which are called "women's segars." Besides this, the fair sex chew betel, which becomes particularly noxious from its being wrapped up in leaves dipped in unslaked lime. Government sell the pound of tobacco at from four to five reals, and the Isle of Luconia alone produces to the crown nearly 300,000 piasters per annum; the rum, too, which they extract from cocoa-blossoms, belongs to the crown, and yields an annual revenue of 120,000 piastres. In the evening we drank chocolate with the governor, whose amiable daughters charmed us with their music and singing. We returned the next morning to Cavite by land in one of the governor's carriages, through Terra Alta. Our road was lined with cultivated fields and bamboos, which I had never before seen growing so high; the use they make of it here even extends to the building of houses and bridges. We stopped at a convent on the road, where Mr. Chamisso wished to speak to a monk, who had written a history of the Philippines.

On the 28th, immediately after my arrival, I ordered that my six Alioutskans should be vaccinated. The surgeon of the district brought on-board two children that had been vaccinated, when our physician performed the operation. The surgeons in this island are strictly commanded to vaccinate the young children in the villages every week. To-day Mr. Tobias dispatched a small rowing flotilla against the Moors, which is done twice a-year: it consisted of nine gun-boats, five of which carried each a twenty-four pounder, and the others ten-pounders; they were strongly manned, and supplied with an abundance of small arms. This fleet sails to the strait Bernardino, where it separates; one half taking its post in the strait, and the other going to the northern part of the isle of Mindano. Since the Spaniards have begun to chastise the Moors in their own haunts, their attacks on Manilla have become less frequent. We had here, with a N.E. monsoon, 23° heat in the day, and 18° at night; and, while we could scarcely endure the heat, the inhabitants at night wrapped themselves up in warm blankets, and called this their winter month. To judge by this, the heat during the south monsoons must be dreadful; in that time a great many people die suddenly by exposing themselves, while heated, to the north wind, which sometimes blows in summer. A disease that prevails here, called St. Lazaro, is the most horrible I ever witnessed. People become leprous all over the body, the limbs fall off, and the wretched sufferer preserves, under the most acute pains, his intellect to the last moment. This disease particularly predominates among the poorer classes of the natives, and is probably a consequence of filthiness and unwholesome food. One hospital in Manilla, sup-

ported by government and private subscription, is entirely filled with such patients; and a monk, who for the last twenty years has had the inspection of them, was of opinion that there was no remedy against this scourge of God, as he termed it. I observed to him that these wretched people wore dirty woollen cloth next their skins, and lived upon spoiled meat; and, when I asked him whether clean linen and wholesome food would not alleviate their condition, he replied, "that costs too much!" However idle the natives may be in work, they know very well how to cheat, and particularly strangers. Their only amusement, and which is carried on passionately, is cock-fighting, for which purpose they have trained cocks, which they always carry along with them. In every village a house is kept by government, where all cocks may fight, but only on Sundays and holidays; the spectators pay one real for their admission, but the owners of the cocks pay four reals, and all this revenue goes to the king. The pit, which no one is allowed to enter, is surrounded by two tiers of boxes: before the battle begins, the bets are deposited; each owner places his cock, which has large knives, two inches long, fixed to its legs in the pit, and the battle is often decided in the first onset, generally, however, in the third or fourth. The defeated cock is most unmercifully treated by his master, who, as a punishment, plucks out his feathers. Large sums are lost in these places, where bets are also made by the spectators; and, if one of them should lose his last shirt, he will leave the cock-pit as happy as he entered it.

On the 12th of January I again went to Manilla. During dinner, the governor related to me the following circumstance, which, he assured me, frequently took place:—A bird was in the habit of building its nest in the tail of horses, which sometimes run about the interior, without being noticed; as soon as this takes place the horse falls sick, and never recovers, even when the bird, with her young, has left his tail. The governor seemed to be convinced of the truth of this circumstance, which, from a less-informed man, I should have considered as a fable. I visited the segar manufactory, formerly a convent, in the suburbs, in which 2000 women and 350 men were employed.

On the 14th I returned to Cavite. The repairs of the Rurick were nearly completed, and we got ready to leave this place on the 27th. The governor had sent a girl to sit to our draughtsman, who was descended from the mountaineers in the interior. These were formerly the sole inhabitants of the Philippines, and, since they were supplanted by the Malays, led a peaceable pastoral life among the hills. They avoid the connexion with Christians, and do not wish to submit to baptism.

The 28th.—Yesterday we left Cavite, and, a few hours after,

cast anchor before Manilla. We took leave of the governor, who came to see us on-board. Capt. Guerin, of the French ship Eglantine, wished to follow me to the strait Sunda, as he had no chronometer on-board, and on the 29th we left the isle of Luconia together.

On the 3d of Feb. at nine o'clock A.M. we were in sight of Pulo Spata, whose longitude by the chronometers was 251° 00′ 6″.

On the 8th, we crossed the equator in 253° 9′ longitude. We descried a ship, which, by her construction and sails, I recognized for a Malayan pirate. She sailed better than our ship, but kept at a distance, trying to get before the wind, to surprize us during the night. I prepared the ship for defence, and the whole crew stood prepared with lances and fire-arms, resolved to defend ourselves to the last. When it grew dark, two sailors took their stations on the bow-sprit, and at eight o'clock they called fire! It was seen a-head of us, but soon disappeared again. I ordered several of the sails to be taken in, and we advanced slowly, in perfect silence, which was suddenly interrupted by the cry of fire! fire! a sail is close at hand! I could clearly distinguish the vessel; and, if we had continued two minutes longer, we should have been boarded. The enemy only being twenty fathoms from us, we gave them a broad-side, and they instantly took another course. Thus we escaped imminent danger, and our precaution would have hardly saved us, if the pirates had not shown their light.

On the 9th, at noon, the isle Gaspar lay thirty-seven miles S.W. 8° of us. Our long. by the chronometers was 252° 52′ 40″. We perceived a strong current setting to S.E. We anchored during the night at eight miles north of the island, in sixteen fathoms, upon a bottom of grey sand, the navigation between Pulo-leat and the isle Banco being dangerous at night. The current ran one mile and a half per hour S.E.

On the 10th we continued our course. I avoided the northern part of Pulo-leat, where, as I afterwards understood, the English frigate Alceste had been wrecked the year before, but we sailed close by the western point.

On the 13th, I anchored near the isle Zupften, two miles off the Sumatra-coast. North Island lay seven miles N.E. 14° of us: one mile and a half north of our anchorage, lay three small low islands, thickly covered with wood, which are not indicated in any chart. Some people in a boat were angling at a short distance, without, apparently, taking any notice of us; but I perceived they observed us attentively, and, when they approached us, as it were by chance, I threw a knife to them, which they received with a friendly nod of the head. They

gave us to understand that they would bring us a large animal from the land, and immediately disappeared between the three islands. These islanders were thin and of a dark colour, and their teeth dyed black; their heads were covered with large straw hats, of the Chinese shape, and their dress consisted of old nankeen shirts. Their boat was made of the whole stem of a tree, with a balancier. The islanders soon returned with a turtle, of an immense size, which was tied across the boat; two monkeys and some parrots were sitting on its stomach. The islanders called the turtle *curpot*; it was as much as two men could lift, and its flesh afterwards supplied the whole crew for two days. When the turtle was on-board, the donor came on deck himself, and put on a pair of very old embroidered silk breeches; he assumed a consequential air, and told me that he made me a present of the turtle, frequently repeating the word "present." Perceiving that he also expected presents, I gave him beads, knives, scissars, and other trifles; but his principal wish seemed to be to have a pistol, and powder, in his language *belbedil*. In the mean time, a second canoe, with five people in it, one of whom spoke a little Spanish and English, arrived with a cargo of monkeys and turtles, but which they would only sell for piasters, pistols and powder. We bought some monkeys, one of which our scientific gentlemen declared to be of a species unknown in natural history. They also sold us fowls, and we might have obtained an abundant supply of provisions, had we stayed here a few days.

On the 14th, at seven o'clock A.M., we passed through the channel between Zupften Island and the current rock; but, on the other side of it, the wind was weak, and the current was carrying us rapidly towards the rocks, when suddenly a fresh breeze, springing up, brought us out of our dangerous situation. The number of the Zupften Islands given in the charts is five, but we counted eight of them. I reached the strait in the afternoon; the Eglantine, which sailed very slow, being now without danger, I left her behind, and continued my course: on the 15th, in the evening, we passed through the strait.

On the 2d of March, at six o'clock P.M. in lat. 22° 2′, long. 289° 40′, the ship was illuminated by a large fire-ball, to such a degree, that we could distinguish the objects as clearly as in the day-time; it rose east of the Pleïades, taking a perpendicular course towards the horizon; the whole duration of the phenomenon was three seconds.

On the 12th of March, being near the southern point of Madagascar, the wind suddenly shifted to the north, and the atmosphere became very chilly. At midnight we were sud-

denly becalmed, but the current carried us, as we found the next day, with the velocity of 48½ miles in 12 hours to 72° north.

On the 17th, lat. 32° 40′, long. 325° 36′, we were assailed by a violent gust of wind, which nearly threw our masts overboard, accompanied by thunder, lightning, and rain.

On the 30th, the weather having been stormy for several days, we entered Table-bay, and came to anchor. During the night we had so violent a storm, that we were obliged to throw out a second anchor. A pilot brought us now to anchor at the usual place, and I immediately went on-shore to pay my respects to Lord Amherst, but who was then in the country.

On the 1st of April, I went on-shore to visit Lord Somerset, at his country-seat. In the evening a storm began, which became so violent that it was impossible to return to the ships, although they lay only fifty fathoms from shore.

On the 3rd, the storm still continued; and it was impossible to go out in the street. My boat in the harbour was carried away, and great damage done to the shipping. When the storm was over, I went on-board, and found the ship covered with sand, which the spray of the sea had entirely crystallized. The barometer, which here never indicates a S.E. storm, stood, when this began, upon 31° 00′, and during the height rose to 31° 10′.

On the 4th, the weather being very fine again, I visited the corvette l'Uranie, Capt. Freycenet, who lay here outward-bound, on a voyage of discovery. He had an engine on-board for distilling sea-water, to qualify it for drinking. This engine, which takes up a space of twenty feet in breadth, and ten feet in width and height, was placed in the fore-part of the hold; it produces, in one day, water enough for 130 men, during three days, and consumes but a trifling quantity of coal.

On the 5th, I dined with Lord Somerset, at his country-seat, where I became acquainted with the worthy Colonel Warre; with whom I rode the next day to Constantia. On our return, I noticed many small pretty birds, resembling the humming-bird, of which the colonel told me the following peculiarity, which he had frequently witnessed himself in his journeys to the interior. When the Hottentots follow a bee for the purpose of discovering their hive, this bird, which seems to know their intention, assists them in the chace, and indicates to them, by whistling, when he has found the hive; the Hottentots, when they have taken out the honey, regularly give the bird (which they call the honey-eater) his share of the booty.

The 13th.—On the 8th we had left Cape Town. On the

18th, in lat. 30° 93′, long. 345° 33′, I had an opportunity of making the following observations:

Temperature of the air	68°	0′
---------- water on the surface . .	67	0
In 200 fathoms	49	5
In 50 ditto	60	8
In 25 ditto	66	0

The 21st.—From the beginning of our voyage to this day, we had sailed 360 degrees, by the meridian of Greenwich, from E. to W., and therefore lost one day. This made me advance from the 21st to the 22d, and we made Wednesday of Tuesday.

On the 25th, off St. Helena, we were fired at from the batteries, notwithstanding the assurance of an English officer from one of the guard-ships, who came on-board, that, after the signals which had been made, they had no right to do so. The officer left us, with the assurance, that, at 11 o'clock A.M. we should receive permission to enter the port; but, having waited in vain till 12 o'clock, I struck the colours and fired a gun, for their kind reception, and stood for the Isle of Ascension.

From St. Helena to Revel.—On the 30th, at 6 o'clock, P.M. we had the Isle of Ascension 1½ mile due west; the chronometers gave for its longitude 14° 22′ 30″. On the 6th of May we crossed the equator in 20° 26′. The current, which from St. Helena had regularly carried us S.W. now changed its direction to S.E.

On the 16th of June, we cast anchor before the town of Portsmouth. I went to London, where I had the honour of being introduced to our grand duke Nicholas and to the Prince Regent. I returned some boxes of patent beef to the inventor, as a proof how well his invention succeeded.

On the 30th, we left England; and, on the 23d of July, I again beheld my native town, Revel.

We left this port on the 27th, and on the 3rd of August, 1818, we dropped our anchor in the Newa, opposite the house of Count Rumanzoff.

THE END.

J. and C. ADLARD, Printers,
23, Bartholomew Close.

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